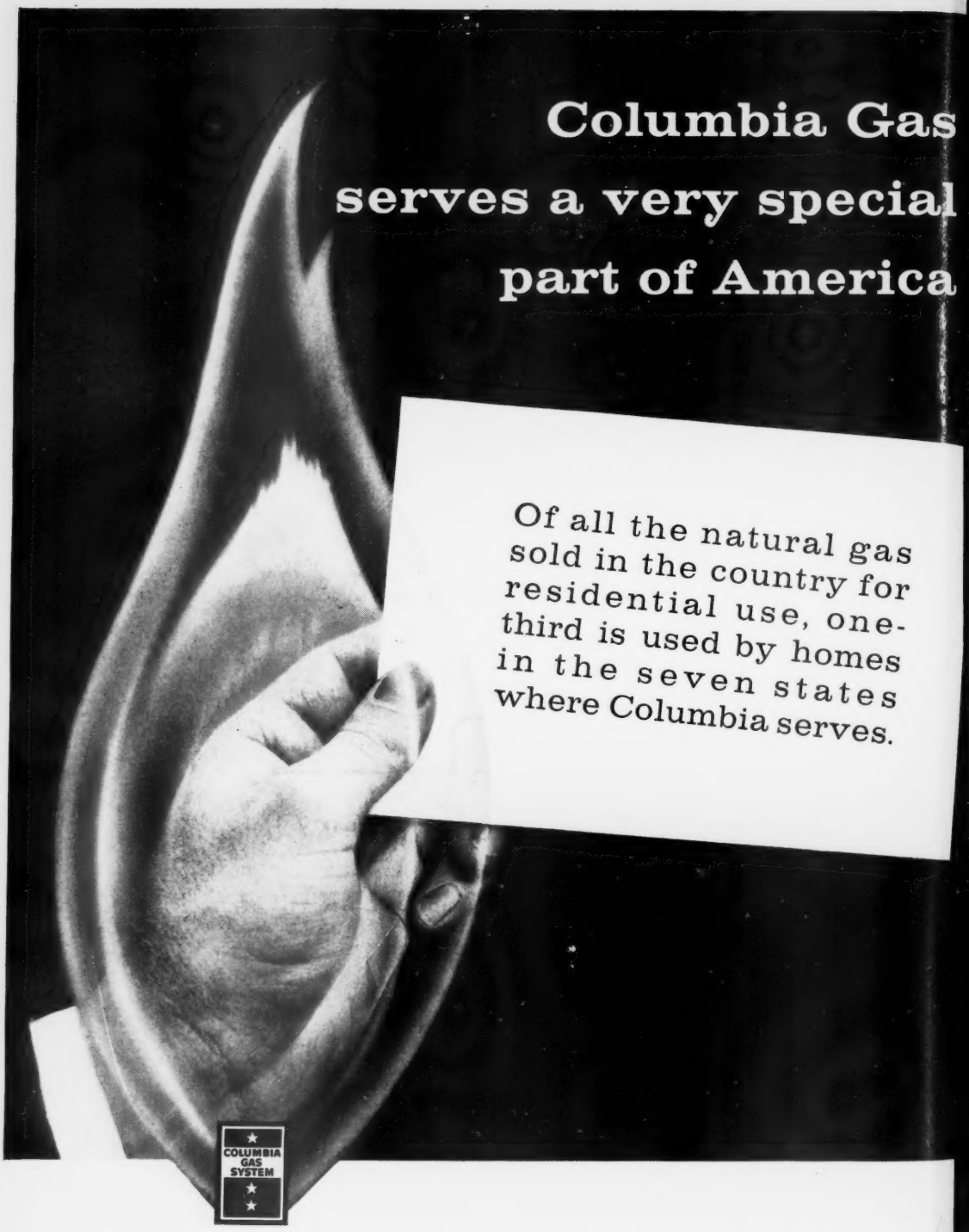
Public Utilities

Volume 63 No. 1 January 1, 1959



Throughout its service territory—in Ohio, Pennsylvania, West Virginia, Kentucky, Virginia, Maryland and southern New York—natural gas continues to be the *preferred fuel* for home and industry.

THE COLUMBIA Gas SYSTEM, I

COLUMBIA GAS SYSTEM SERVICE CORPO
COLUMBIA HYDROCARBON CORPOR
120 EAST 41st STREET, NEW YORK 1

CHARLESTON GROUP: UNITED FUEL GAS COMPANY, 1700 MacC
AVENUE, S.E., CHARLESTON, WEST VIRGINIA. **COLUMBUS GROUP:**
OHIO FUEL GAS COMPANY, 99 NORTH FRONT ST., COLUMBUS 15,
PITTSBURGH GROUP: THE MANUFACTURERS LIGHT AND HEAT
PANY, 800 UNION TRUST BLDG., PITTSBURGH 19, PA.

REPRINTS OF ARTICLES
(200 or more copies)
available on orders received within 30 days after publication date.
Address
WASHINGTON OFFICE
for quotations.

LIC UTILITIES FORTNIGHTLY . . stands federal and state regulation of both ately owned and operated utilities and cly owned and operated utilities, on a and nondiscriminatory basis; for non-iminatory administration of laws; for able and nondiscriminatory taxation; in general—for the perpetuation of the enterprise system. It is an open forum he free expression of opinion concern-public utility regulation and allied s. It is supported by subscription and rtising revenue; it is not the mouthpiece y group or faction; it is not under the rial supervision of, nor does it bear the rsement of, any organization or associa-The editors do not assume responsi-for the opinions expressed by its ib tors.

ripions: Address correspondence to PUBLIC TIE FORTNIGHTLY, circulation department, Pen ylvania Building, Washington 4, D. C. on month for change of address.

e copies $1.00. Annual subscription price issu a year): United States and posses-$1 .00; Pan American countries, $15.00; la, 16.00; all other countries, $17.50.

ed as second-class matter April 29, 1915, the Act of March 3, 1879, at the Post Office alt more, Md., December 31, 1936. Copy-d, 1959, by Public Utilities Reports, Inc. ed in U. S. A.

Public Utilities
FORTNIGHTLY

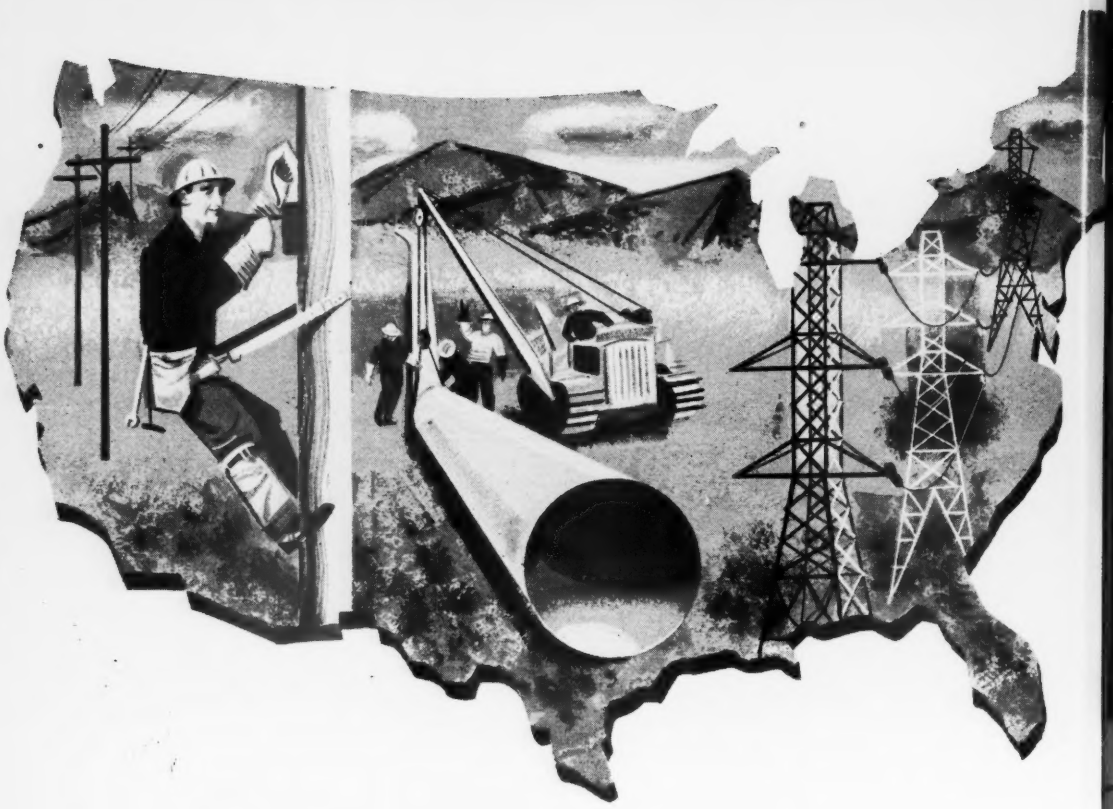
VOLUME 63 JANUARY 1, 1959 NUMBER 1

ARTICLES

FEATURE SECTIONS

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Executive, Editorial & Advertising Offices .....332 PENNSYLVANIA BLDG., WASHINGTON 4, D. C.
Publication Office .....CANDLER BUILDING, BALTIMORE 2, MD.
Advertising Representatives:
New York 6: Robert S. Farley, 111 Broadway, COrtland 7-6638
Cleveland 15: Macintyre-Simpson & Woods, 1900 Euclid Avenue, CHerry 1-1501
Chicago 1: Macintyre-Simpson & Woods, 75 E. Wacker Drive, CEntral 6-1715
Pacific Coast: M. D. Pugh & Associates,
P. O. Box 635, Altadena, Calif., SYcamore 7-2894
and
Hunter Vinton, 1050 Lincoln Avenue, Palo Alto, Calif., DAvenport 5-4815



Lifelines of the nation!

Playing a dynamic role in the economy of our nation, the investor-owned Utility Industry continues to expand its lifelines of service. Not only meeting the needs of today's consumers, but preparing also for an atomic age, Utilities are faced with enormous capital expansion requirements.

To assist in the many financial complexities accompanying this growth, Irving specialists are ready with new and sound approaches. Our Analytical Studies, Seminars, and Round Tables, may bring added vitality to your capital planning, financing, or cultivation of the financial community.

For more information, call Public Utilities Department at DIgby 4-3500
or write us at One Wall Street

IRVING TRUST COMPANY

One Wall Street, New York 15, N.Y.

Capital Funds over $130,000,000 — *Total Assets over $1,600,000,000*

RICHARD H. WEST, *Chairman of the Board* — GEORGE A. MURPHY, *President*

Public Utilities Department—JOHN F. CHILDS, *Vice President in Charge*

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

General view of dam at Grand Coulee, built by the Bureau of Reclamation, which utilizes 18 Newport News turbines, the most powerful ever built. Nine are 150,000 h.p. units, and the other nine are rated at 165,000 h.p. each.

Specialists . . . in building Water Power Equipment

Turbines designed and built for the world's largest development at Grand Coulee... and for other hydroelectric installations in America and various parts of the world... bespeak the skill and facilities offered by Newport News.

This trained organization has filled hydroelectric turbine contracts with an aggregate rated output of 7,000,000 horsepower.

Other equipment designed and built by Newport News includes penstocks, pressure regulators, valves, pumps, gates and rack rakes. Upon request, a copy of our illustrated booklet entitled "WATER POWER EQUIPMENT" will be sent to you.

Typical Users of Newport News Equipment

PLANT	LOCATION
Boone	Tennessee
Buchanan	Texas
Cerrillos	Puerto Rico
Chief Joseph	Washington
Clark Hill	South Carolina
Deer Lake	Newfoundland
Folsom	California
Fort Patrick Henry	Tennessee
Hiwassee	Tennessee
Hoover	Nevada
J. Kerr	Virginia
Jim Woodruff	Florida
Lower Salmon	Idaho
Norris	Tennessee
Rock Creek	California
Santee-Cooper	South Carolina
C. J. Strike	Idaho
Whitney	Texas
Wilson	Alabama

Newport News

SHIPBUILDING AND DRY DOCK COMPANY

Newport News, Virginia

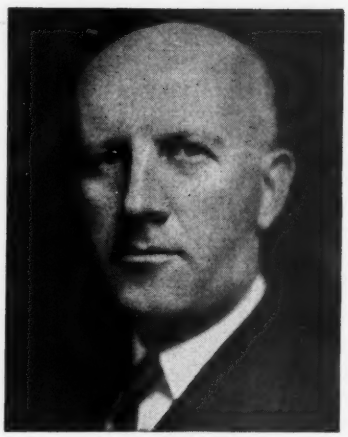
Pages with the Editors

As we enter the New Year 1959 we are struck by an impression of great change—many new things. On every hand there seem to be noteworthy departures from the old order. Here and there we may detect an occasional throwback—such as college boys going to football games in raccoon coats and derby hats. But on the whole, things are a lot different from the way they used to be in grandpa's day. And that goes for almost every field of endeavor—the arts, the sciences, trade and politics.

Not the least among the claimants for progressive alterations are the modern public utility operations. The telephone companies are selling office equipment services and other appliances. The electric companies are going in for space heating and atom plants. The gas utilities are going in for air conditioning. The railroads are cutting out passenger service. It is a dizzy world and a complicated New Year for all of us.

There is the human tendency, of course, for everyone to think of his own time and experience as being very important. The late H. G. Wells used to say that more important and significant changes had taken place in the world during the twentieth century than in all the preceding history of mankind since the birth of Christ. Certainly an era that witnessed the advent of the automobile, airplane, radio, television, atom bomb, earth satellites, and space missiles has a good claim to the prize for the period of the most change on the face of the earth.

But such changes are mainly physical or technological; and a more philosophical spirit, such as Aristotle, for example, might turn up his nose at such pyrotechnics. How much new constructive *thinking* has the human race been doing, since the turn of the century, Aristotle might ask? And what has it got to show for it by way of constructive results? Is not the push-button missile contest only an adult lethal version of small boys playing with matches?



C. E. WRIGHT

Well, some changes are welcome even for the sake of change. A Scripps-Howard columnist recently bemoaned the sad state of television for kiddies, as shown by the current popularity of old western, shoot-'em-up movies. He counted 176 homicides and 125 cases of assault and mayhem in just forty hours of looking at the idiot box. Just why a man would want to spend his time in this manner, or keep a tally on such goings on, is surprising in itself. But as the same Scripps-Howard journal editorially pointed out, the revival of the Wild West film at least threw into eclipse those inane quiz shows which were threatening to turn us into "a nation of mental ragpickers rummaging for random useless facts."

Elsewhere on the contemporaneous scene, as we move unsteadily into this New Year of 1959, is a new form of communication discovered by the Soviet chief of state, Nikita S. Khrushchev. This is a real Russian invention—no phony. He has found a sure-fire way to get the most mileage out of a story he wishes to spread all over America. He just calls it a state secret

New Issues · 1958

Purchased and Offered by Halsey, Stuart & Co. Inc. alone or with associates*

Amount of Issue	Tax-Exempt
225,000	BALTIMORE, MD.† Var. Rates Bonds, Due 1961-82
840,000	BERGEN COUNTY SEWER AUTH., N. J.† Var. Rates Bonds, Due 1961-97
000,000	BOSTON, MASS. (2 issues) .88% & 1.65% Notes, Due 1958
000,000	CHICAGO, ILL.† (2 issues) Var. Rates Bonds & Water Rev. Ctfs., Due 1960-83
000,000	CHICAGO BOARD OF EDUCATION, ILL. 2% & 1.70% Tax Warrants, Due 1959 3½% Bonds, Due 1961-78†
800,000	CLEVELAND, OHIO† 2½% & 2¾% Bonds, Due 1959-83
000,000	CONSUMERS PUBLIC POWER DISTRICT, NEBR.† Var. Rates Rev. Bonds, due 1962-92
000,000	COOK COUNTY, ILL.† 3⅛% Bonds, Due 1959-68
000,000	DADE COUNTY, FLA.† Var. Rates Spec. Ctfs., Due 1958-72
750,000	DENVER, COLO., CITY & COUNTY OF† Var. Rates Bonds, Due 1969-97 (2 issues)
185,000	DETROIT, MICH.† (3 issues) Var. Rates Bonds & Rev. Bonds, Due 1960-83
000,000	EAST BATON ROUGE PARISH S/D No. 1, LA.† Var. Rates Bonds, Due 1960-79
000,000	GEORGIA RURAL ROADS AUTHORITY† Var. Rates Bonds, Due 1960-79
000,000	GREENSBORO, N. C.† Var. Rates Bonds, Due 1959-83
150,000	HARRISBURG SEWERAGE AUTH., PA.† Var. Rates Rev. Bonds, Due 1961-83
000,000	HAWAII, TERRITORY OF† Var. Rates Rev. Bonds, Due 1960-88
000,000	ILLINOIS STATE TOLL HIGHWAY COMMISSION† 4¼% Rev. Bonds, Due 1998
000,000	KENTUCKY, COMMONWEALTH OF† 3% Bonds, Due 1973-86
000,000	LOS ANGELES, CALIF.† (2 issues) Var. Rates Bonds, Due 1959-88
000,000	LOUISIANA, STATE OF† Var. Rates Spec. Tax Bonds, Due 1963-93
000,000	MARYLAND STATE ROADS COMMISSION† Var. Rates Rev. Bonds, Due 1959-73
477,000	MASSACHUSETTS, COMMONWEALTH OF† Var. Rates Bonds, Due 1959-98 (2 issues)
000,000	METROPOLITAN WATER DISTRICT OF SO. CALIF.† 3.10% Bonds, Due 1959-70
000,000	MEMPHIS, TENN.† Var. Rates Rev. Bonds, Due 1960-88
000,000	MIAMI, FLA.† (2 issues) Var. Rates Bonds & Rev. Bonds, Due 1960-88
000,000	MICHIGAN, STATE OF† Var. Rates Spec. Tax Rev. Bonds, Due 1959-82
000,000	MILWAUKEE, WIS. (2 issues)† Var. Rates Bonds & Water Rev. Bonds, Due 1959-86
998,000	NEWARK, N. J.† 3.10% Bonds, Due 1959-78
467,000	NEW HAMPSHIRE, STATE OF† 2.60% Bonds, Due 1959-86
774,814	NEW YORK SCHOOL DISTRICTS Var. Rates Bonds, Due 1958-88 (21 issues)
000,000	OHIO, STATE OF† (2 issues) Var. Rates Spec. Tax Rev. Bonds, Due 1958-72
000,000	OREGON, STATE OF† Var. Rates Bonds, Due 1963-72
130,000	PHILADELPHIA, PA.† Var. Rates Bonds, Due 1959-88
000,000	PHILADELPHIA SCHOOL DIST., PA.† Var. Rates Bonds, Due 1960-83
000,000	PORT OF NEW YORK AUTHORITY† Var. Rates Rev. Bonds, Due 1959-78
000,000	SOUTH CAROLINA, STATE OF† 2.30% Bonds, Due 1959-74
000,000	SPRINGFIELD, ILL.† (2 issues) Var. Rates Rev. Bonds, Due 1960-97
887,000	SPRINGFIELD, MO. Var. Rates Rev. Bonds, Due 1962-86
000,000	STATE PUBLIC SCHOOL BLDG. AUTH., PA. Var. Rates Bonds, Due 1959-94
975,000	ST. LOUIS COUNTY, MO.† Var. Rates Bonds, Due 1959-78
400,000	TAMPA, FLA.† Spec. Tax Bonds, Due 1959-87
976,000	TEXAS, UNIV. AND A & M. COLLEGE Var Rates Bonds, Due 1959-78
975,000	WAYNE & MACOMB COUNTIES, MICH.† Var. Rates Spec. Tax Drain Bonds, Due 1959-88
142,930	ADDITIONAL TAX-EXEMPT BONDS— (126 issues)

Amount of Issue	Corporate	Underwriting Interest
$ 30,000,000	BALTIMORE GAS AND ELECTRIC COMPANY First Ref. Mtge. Bonds, 4% Series due 1993	$ 3,550,000
20,000,000	CAROLINA POWER & LIGHT COMPANY First Mtge. Bonds, 4⅛% Series due 1988.	4,200,000
18,000,000	CENTRAL HUDSON GAS & ELECTRIC CORPORATION First Mortgage Bonds, 4⅛% Series due 1988	4,200,000
12,000,000	CENTRAL ILLINOIS LIGHT COMPANY First Mortgage Bonds, 4% Series due 1988	3,850,000
30,000,000	THE COLUMBIA GAS SYSTEM, INC. 4⅜% Debentures, Due 1983	4,000,000
50,000,000	CONSOLIDATED EDISON COMPANY OF NEW YORK, INC. First & Ref. Mtge. Bonds, 4% due 1988	7,950,000
40,000,000	CONSUMERS POWER COMPANY First Mtge. Bonds, 4½% Series due 1988.	11,050,000
11,700,000	GREAT NORTHERN RAILWAY EQUIPMENT TRUSTS OF 1958, 3½%, 4% & 4⅛% Certificates, Due 1958-73	6,000,000
10,000,000	IOWA PUBLIC SERVICE COMPANY First Mortgage Bonds, 4¼% Series due 1988	5,450,000
14,730,000	LOUISVILLE AND NASHVILLE RAILROAD EQUIPMENT TRUSTS, 3½% & 3⅜% Certificates, Due 1959-73	4,980,000
11,000,000	MADISON GAS AND ELECTRIC COMPANY 4⅜% First Mtge. Bonds, 1988 Series	5,150,000
20,000,000	MERRIMACK-ESSEX ELECTRIC COMPANY First Mtge. Bonds, 4½%, due 1988	7,600,000
15,000,000	MISSISSIPPI POWER & LIGHT COMPANY First Mtge. Bonds, 4⅛% Series due 1988.	7,100,000
35,000,000	MONTREAL, THE CITY OF (CANADA)† Var. Rates Debs. Due 1959-65 & 1978	2,555,000
13,500,000	MONTREAL TRANSPORTATION COMMISSION† 4⅛% S.F. Debentures, Due 1978	1,130,000
65,000,000	NATURAL GAS PIPELINE COMPANY OF AMERICA† 4¼% Debs. & 4⅛% First Mtge. Pipeline Bonds, due 1978	5,167,000
10,000,000	NEW ENGLAND POWER COMPANY First Mtge. Bonds, 4%, due 1988	3,550,000
45,000,000	NEW ENGLAND TELEPHONE AND TELEGRAPH COMPANY 35 Year 4% Debentures, Due 1993.	4,350,000
30,000,000	NEW JERSEY BELL TELEPHONE COMPANY 35 Year 3⅞% Debentures, Due 1993	6,250,000
10,000,000	ORANGE AND ROCKLAND UTILITIES, INC. First Mtge. 4½% Bonds, due 1988.	5,100,000
140,000,000	PACIFIC GAS AND ELECTRIC COMPANY† First & Ref. Mtge. Bonds, 3¼% & 4½%, due 1978 & 1990	9,525,000
80,000,000	PACIFIC TELEPHONE AND TELEGRAPH COMPANY 32 Year 4⅛% Debentures, Due 1990	17,850,000
350,000,000	SEARS, ROEBUCK AND CO.† 4¼% Sinking Fund Debentures, due 1983	16,791,000
70,000,000	SOUTHERN BELL TELEPHONE AND TELEGRAPH COMPANY 35 Year 4⅛% Debentures, Due 1993	17,750,000
50,000,000	SOUTHERN CALIFORNIA EDISON COMPANY First & Ref. Mtge. Bonds, 4⅛%, Due 1983	7,350,000
15,000,000	SOUTHERN COUNTIES GAS COMPANY OF CALIFORNIA First Mtge. Bonds, due 1983 (4%)	4,150,000
30,000,000	SOUTHERN NATURAL GAS COMPANY 4½% Sinking Fund Debentures, Due 1978	3,100,000
40,000,000	SYLVANIA ELECTRIC PRODUCTS INC.† Debentures, 4¾% & 4½% Due 1980 & 1983	4,370,000
80,000,000	TENNESSEE GAS TRANSMISSION COMPANY† 5% Debs. due 1978 & 5⅛% First Mtge. Bonds due 1979	4,335,000
10,000,000	TEXAS ELECTRIC SERVICE COMPANY First Mtge. Bonds, 4½% Series due 1988	6,400,000
12,000,000	THE VIRGINIAN RAILWAY COMPANY First Lien & Ref. Mtge. Bonds, 4%, Due 1983	2,800,000
25,000,000	ADDITIONAL PUBLIC UTILITY BONDS (4 issues)	12,800,000
34,005,000	ADDITIONAL EQUIPMENT TRUST CERTIFICATES— (8 issues)	14,805,000

Descriptive circulars or prospectuses, where available, and current quotations will be supplied for any of these securities upon request.

**To December 10, 1958 † Issue headed jointly by Halsey, Stuart & Co. Inc. and others. All other issues were headed by Halsey, Stuart & Co. Inc. alone. Not included in these compilations are issues in which Halsey, Stuart & Co. Inc. participated only as a member of an account.*

Send For Year-End Bond Survey and Helpful Tax Chart

Concise survey of 1958 bond market and outlook for 1959, and tax chart to help you determine the value of tax exemption in your income bracket. Write without obligation for folders PF-1.

HALSEY, STUART & CO. INC.

123 S. LA SALLE STREET, CHICAGO 90 • 35 WALL STREET, NEW YORK 5

AND OTHER PRINCIPAL CITIES

and "confides" it to a United States Senator for personal delivery to the President.

ABOUT the newest thing in Washington these days, or at least the thing which shows very much change for the year 1959, will be the newly elected 86th Congress. A legion of Republicans and a few old-line Democrats will be missing when the rôle is called up yonder on Capitol Hill, January 7th. Yet, there will be quite a few familiar faces doing business at the same old stand where it counts the most in Congress. That would be among the committee chairmen, most of whom will be back with us for another two years.

WHAT will be the fate of legislation of interest to public utility industries and public utility regulators in the next Congress? Will the controls of the virtually unchanged leadership and committee chairmen spell out a fate similar to the legislative experience of 1958 and 1957? Or will the infusion of such a large freshman class, many from the left side of the political tracks, shift the center of gravity of the new Congress completely out of right field?

FOLLOWING his annual custom of many years, our editor, FRANCIS X. WELCH, has dusted off his crystal ball and come up with another stout list of ten predictions of things to come. We shall let MR. WELCH'S predictions speak for themselves, as they will be found by the reader in the opening article in this issue. MR. WELCH has run up some pretty good scores in the past; and there have been times when his performance was only so-so. This is the first time he can claim a perfect score, although it may turn out that he was saved by the bell in connection with a couple of delayed cases at the Federal Communications Commission.

* * * *

AMONG other noteworthy changes in the public utility field has been the impact of the chemical industry on gas and electric utility operations. Beginning with this issue (page 16) C. E. WRIGHT, former industrial magazine editor and now a free-lance writer in Jacksonville, Florida, starts a three-part series on relations between the chemical industry and the two utility groups. The first instalment deals with utility company experience along this line in Texas, Louisiana, Mississippi, and the adjacent Gulf area. A veteran journalist, MR. WRIGHT was formerly connected with *Iron Age*, of which he was managing editor for five years.

WILLIAM R. CONNOLE

* * * *

FPC COMMISSIONER WILLIAM R. CONNOLE, whose article on threshold pricing of natural gas begins on page 23, is a native of Connecticut and a graduate of Georgetown University in Washington, D. C. (BA, LLB). He also took a Master of Arts degree at the graduate school of Trinity College in Hartford. Following World War II experience with the Army Air Force as a meteorologist in the Caribbean and South American theaters, COMMISSIONER CONNOLE turned to legal practice in Hartford. He entered the regulatory field in 1950 when he was appointed counsel and chief legal officer of the Connecticut Public Utilities Commission. In 1955 he was appointed by President Eisenhower as a member of the Federal Power Commission.

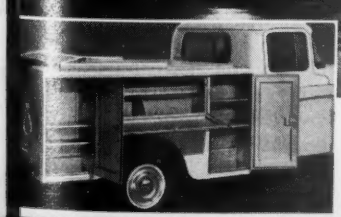
THE next number of this magazine will be out January 15th.

The Editors

Has tools...will travel! Utility and other emergency servicemen swear by this Dodge V-8 Tradesman, and for good reasons. Besides pick-up load space, it has lock-up room for all tools. And with famous Dodge dependability, it has these advantages that come in handy on all service calls: 45 hp. more than Truck "C", 19 more than Truck "F" . . . shortest turning radius . . . the largest payload, load space, and brakes in the low-priced 3.

You can choose a powerful V-8 or thrifty Six, 3- or 4-speed transmission—even push-button automatic LoadFlite. See your Dodge dealer about this Tradesman, or any Dodge truck up to 49,000-lb. G.V.W. Power Giants. Find out why . . .

today,
it's real smart
to choose **Dodge Trucks**



A king-sized tool chest on wheels . . . that's the Dodge Tradesman's body. Tools and supplies stow neatly, where you can reach them quickly. A place for everything. All compartments lock. Available sliding roof protects pick-up load space, between body sides. Choice of two body styles.

Coming IN THE NEXT ISSUE

(January 15, 1959, issue)

★

THE ECONOMIC LIABILITY TO REPLACE

The "liability to replace" as a measure of accrued depreciation is not a new method as far as the courts and public utility commissions are concerned in rate-making and accounting procedures. This method was used with good results by expert witnesses as long ago as twelve years and as recently as last year, in connection with an important rate case hearing. But this article by Professor Albert A. Ring of the University of Florida is probably the first time the liability to replace method has been spelled out for publication of general reader interest. Public utility economists, executives, attorneys, and others will find Professor Ring's analysis of the economic liability to replace as a measure of accrued depreciation of definite interest.

THE IMPACT OF CHEMICAL INDUSTRY ON ELECTRIC-GAS UTILITIES. PART II.

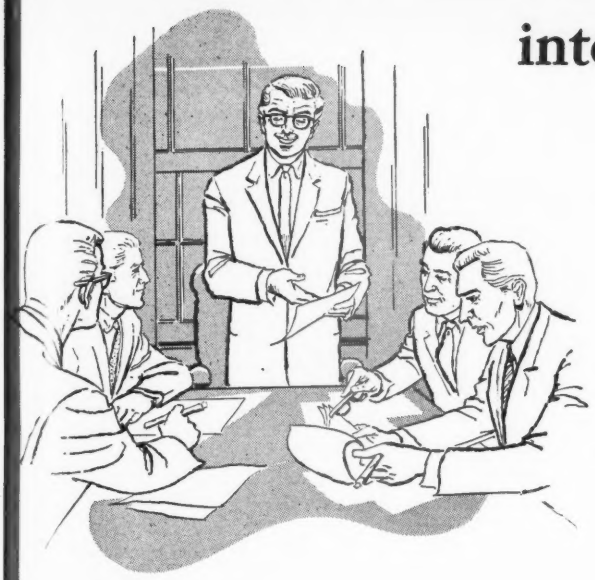
This is the second of a three-part article showing how gas and electric utilities in nearly all sections of the country have shared in the outstanding growth of chemical processes in recent years. About 60 per cent of new plant growth for 1957 through 1959 has been scheduled for 14 states in the South and Southwest. In Part I of this series by C. E. Wright, former industrial magazine editor of Jacksonville, Florida, a picture was painted of the chemical industrial complexion that dominates the states of Texas and Louisiana. In this second part Mr. Wright extends his picture to the South Atlantic states where the story of one of the greatest industrial expansions the nation has witnessed in many years is unfolded.

UTILITY PROBLEMS DURING INFLATION

Perhaps the utility industries have not yet mastered well enough the art of successfully presenting to the public the essence of their complex story. Certainly the performance of the gas and electric utilities in holding down the price of their products during the postwar inflationary period has not been generally appreciated nor even recognized. Herman L. Gruehn, vice president of the Baltimore Gas & Electric Company, has set forth some unvarnished facts and some challenging thoughts in connection with the revenue requirements of these utilities during a period of inflation. Without attempting to tell these industries how to get their message across, he does give a down-to-earth summary of what the message should be. And he points to the railroads as an example of what can happen if the message does not somehow get across to the American public and its representatives.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***



"I do not exclude the intelligent anticipation of facts* even before they occur."

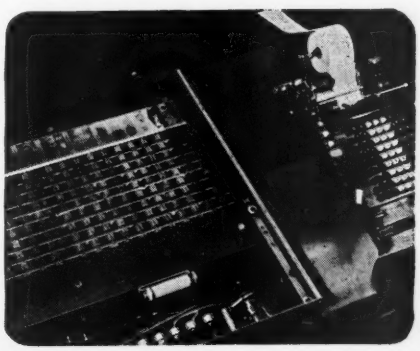
—CURZON

Rate Commissions will consider them too

R&S HAS THE KEY to "intelligent anticipation of facts" upon which rate increase applications can be solidly based—continuing *monthly* rate analyses, delivered in plenty of time for a 'forward instead of a backward look'.

The difference can be great in return on invested capital (which now should be 6½–7%) and in more favorable terms when seeking *new* capital for expansion.

R & S "One Step" Method of Bill Analysis is simplicity itself to put into operation—*we do all the work in our office* on the machine illustrated below (exclusive with R & S). The cost is infinitely lower and faster than by any other method.



We would like to send you the complete story—a request to Dept. P-1 will bring you the booklet "THE ONE STEP METHOD OF BILL ANALYSIS"—no obligation of course.

R&S

NATION-WIDE SERVICE

RECORDING & STATISTICAL CORP.

100 SIXTH AVENUE
NEW YORK 13, N. Y.

Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

DWIGHT D. EISENHOWER
President of the United States.

"The hallmark of freedom is the right to differ as well as the right to agree."

LYNDON JOHNSON
U. S. Senator from Texas.

"The greatest of our perils is the prospect that we may allow our fears to transform our character, sap our vigor, and consume our strength."

HOLMES ALEXANDER
Columnist.

"We need another generation of go-getters in our flagging nation. We need to purge the secrecy and guilt which still cling to the inner ambition of most Americans—to get rich."

BENJAMIN FAIRLESS
Former president, United States Steel Corporation.

"In my opinion, one of the most powerful guaranties of quality performance is an incentive . . . Men take chances and work to the limit of their ability when the incentive is worthy of the risk or effort."

EDITORIAL STATEMENT
The Wall Street Journal.

"There is only one right approach to taxes, and that is for the government to reduce its spending enough to permit reductions without unbalancing the budget. But if that is too much to expect from the nervous politicians in the administration and Congress, then let them at least enact a legitimate cut in tax rates. What the economy needs far more than a tax holiday is a holiday from government gimmicks."

EZRA TAFT BENSON
Secretary of Agriculture.

"Our society must remain free of excessive governmental paternalism, regimentation, and control. We are touched by government from before we are born until after we die. Government impinges on our lives every hour of the day and night. Most of these government activities are helpful in greater or lesser degree. But we must face the central problem of just how much of our lives, of our freedom, of our economy, and of our society we want to entrust to government."

RAYMOND MOLEY
Columnist.

"Of very great importance is the bearing that the union shop has in politics. If the money contributed by workers of all and no party affiliation can be spent for a candidate picked by union leaders, the denial of justice goes beyond economic affairs. It is the denial to American citizens of their political freedom to support candidates of their choice. To permit this sort of injustice to be prevalent will result in a political as well as an economic monopoly inimical to free institutions."

REMINGTON RAND "99"

TRADEMARK

printing calculator

With its amazing versatility, The REMINGTON RAND Model "99" Printing Calculator is the *new fashion in figuring* for every aspect of American business' high-pulsed activity.

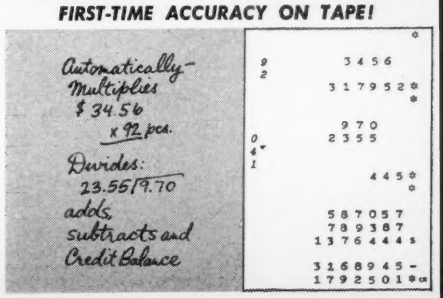
Eliminating the inefficiency of doing each problem a second time, the "99" Calculator fashions your figurework *economically with one-time, automated calculations.* It offers fully automatic multiplication and division with high-speed addition and subtraction *on the same keyboard!*

Did you **know that you can buy a "99" Printing Calculator for less than $10 a week after down payment?** Call your local Remington Rand Office or write for folder C1152, Room 1137, 315 Fourth Ave., N. Y. 10, N. Y.

Remington Rand

DIVISION OF SPERRY RAND CORPORATION

FIRST-TIME ACCURACY ON TAPE!



Whether in general operations, financing, engineering or other business matters, the consulting and advisory services of Commonwealth can be of material assistance.

These services are integrated with the plans and policies of client management in accomplishing the desired objectives. Commonwealth experience is built on work covering many states and companies, in operations varying from a few employees to thousands, and in projects from a few dollars to many millions.

Commonwealth is an independent organization built on a business record of 50 years, and wholly owned by officers and employees.

Let our booklet tell you more.

MMONWEALTH SERVICES INC.

Yor . N. Y. Jackson, Mich. Washington, D. C. Houston, Tex.

300 PARK AVENUE, NEW YORK 22, NEW YORK

COMMONWEALTH ASSOCIATES INC.

JACKSON, MICHIGAN

The Commonwealth Professional Engineering Organization

FINANCIAL
RATES
INSURANCE
PURCHASING
GAS OPERATIONS
CORPORATE
PENSIONS AND WELFARE
BUSINESS DEVELOPMENT
INDUSTRIAL RELATIONS
PUBLIC RELATIONS
STOCK TRANSFER
PROXY SOLICITATIONS
GENERAL CONSULTATION
ENGINEERING—
CONSULTING AND DESIGN

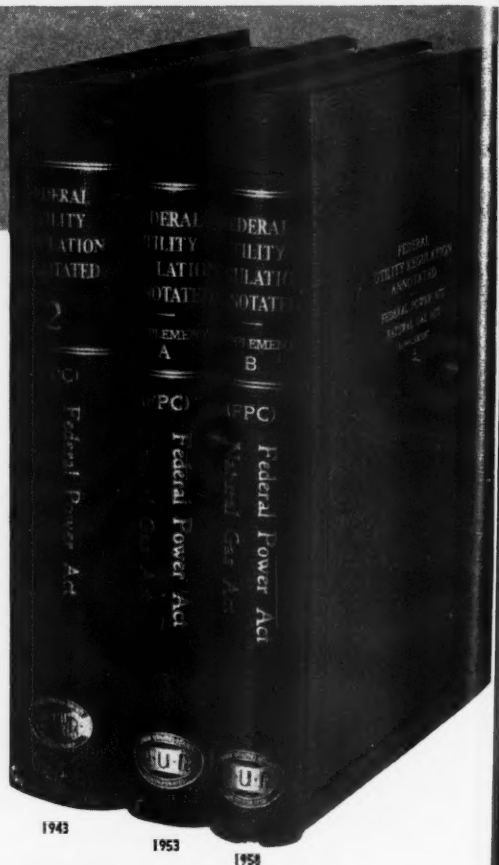
TAXES
DEPRECIATION
ACCOUNTING

FEDERAL UTILITY REGULATION ANNOTATE

VOLUME 2, WITH SUPPLEMENTAL VOLUMES A AND B

The only up-to-date annotation of the

FEDERAL POWER ACT and NATURAL GAS ACT



This 3-volume set comprises an analytical survey of the activities of the Federal Power Commission, in the administration of the Federal Power Act and the Natural Gas Act from the beginning through 1957.

Replete with

- Annotations of each Act, section by section, covering all important and precedent-making opinions of the Commission and of the courts on appeal, to *January 1, 1958.*
- Extensive editorial analyses
- FPC rules and regulations in effect July 1, 1958.

Only Complete Reference Work of its Kind

Questions are discussed relating to the determination of the cost of projects, accounting, rate-base determinations, rates, service and granting of licenses, including the question of licensing partially settled by the special law authorizing development of power by the New York State Power Authority. The extent of the Commission's jurisdiction, what constitutes interstate commerce, return allowance, cost allocation in the fixing of gas rates, and many other vital subjects, are also discussed.

Recent Commission and court rulings are included on various phases of the complex problems arising from the extension of Commission regulation to natural gas producers, as a result of the U. S. Supreme Court decision in the *Phillips Case*. Decisions are also included dealing with the filing of rates by gas producers and those with whom they do business, the departure from the cost basis for rate making because of the nature of producer operations, and the troublesome problems as to changes in filed contract rates, such as the questions arising in the *Memphis Case*.

A valuable possession for the executives of gas producing, pipeline, gas distributing and electric companies, and their counsel, as well as attorneys, rate experts, accountants, valuation engineers, utility analysts and others having an interest in the activities, practices and procedures of the Federal Power Commission.

Complete set of 3 volumes—$37.50.

PUBLIC UTILITIES REPORTS, INC., *Publishers*

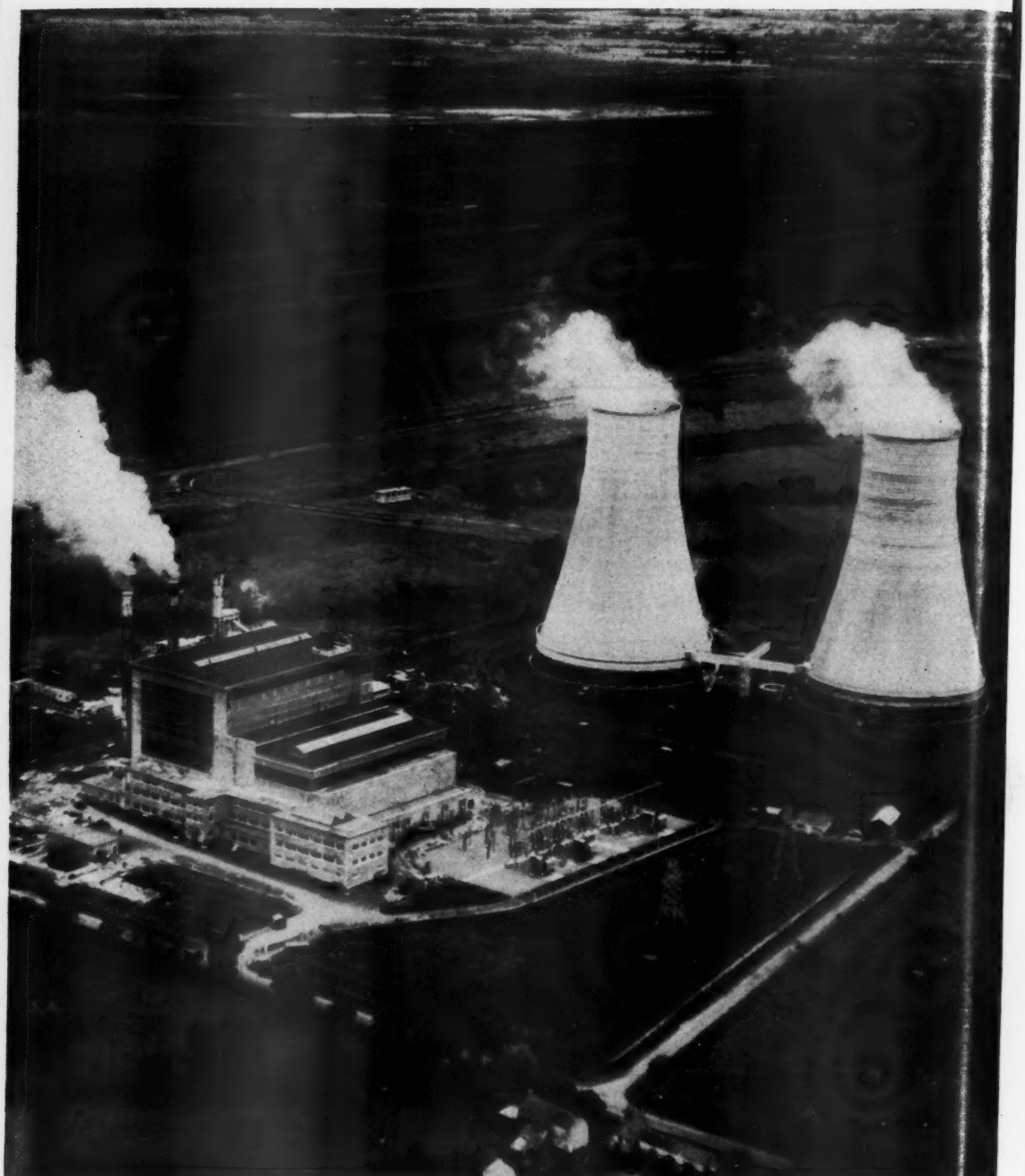
332 PENNSYLVANIA BUILDING

WASHINGTON 4, D. C.

UTILITIES *A·l·m·a·n·a·c·k*

JANUARY

Thursday—1 *Happy New Year, 1959!*	**Friday—2** *National Association of Home Builders will hold convention and exposition, Chicago, Ill. Jan. 18-22.* ***Advance notice.***	**Saturday—3** *Industrial Heating Equipment Association will hold annual meeting, Cleveland, Ohio. Jan. 19, 20.* ***Advance notice.***	**Sunday—4** *American Society of Heating and Air Conditioning Engineers will hold annual meeting and exposition, Philadelphia, Pa. Jan. 26-29.* ***Advance notice.***
Monday—5 *International Home Furnishings Market begins merchandise mart, Chicago, Ill.*	**Tuesday—6** *Canadian Electrical Association, Eastern Zone Section, will hold meeting, Quebec, Quebec, Canada. Jan. 26-29.* ***Advance notice.***	**Wednesday—7** *Doble Clients Conference will be held, Boston, Mass. Jan. 26-30.* ***Advance notice.***	**Thursday—8** *Third Annual "Live Better Electrically" Women's Conference begins, Chicago, Ill.*
Friday—9 *American Water Works Association, New York Section, will hold midwinter luncheon meeting, New York, N. Y. Jan. 27.* ***Advance notice.***	**Saturday—10** *Midwest Welding Conference will be held, Chicago, Ill. Jan. 28, 29.* ***Advance notice.***	**Sunday—11** *American Gas Association will hold home service workshop, New Orleans, La. Jan. 29-31.* ***Advance notice.***	**Monday—12** *American Institute of Electrical Engineers will hold winter general meeting, New York, N. Y. Feb. 1-6.* ***Advance notice.***
Tuesday—13 *American Gas Association-Pacific Coast Gas Association begin joint public relations conference, Phoenix, Ariz.*	**Wednesday—14** *National Telephone Co-operative Association will hold annual meeting, Washington, D. C. Feb. 6, 7.* ***Advance notice.***	**Thursday—15** *Edison Electric Institute, Industrial Power and Heating Group, begins meeting, Atlanta, Ga.*	**Friday—16** *Oklahoma Utilities Association, Accounting Section, begins meeting, Tulsa, Okla.*



Courtesy, Irish Electricity Supply Board

Paddy's Power from Peat!

Yes, in old Eire, the Ferbane generating station is the first Irish electric plant ever to use milled peat for the production of electric power. An immense peat bog is in the background. (See story in "What Others Think" department, page 53.)

Public Utilities
FORTNIGHTLY

VOLUME 63 JANUARY 1, 1959 NUMBER 1

The Outlook For Public Utilities–1959

By FRANCIS X. WELCH*

With the New Year will come a new Congress—the 86th—heavily dominated by the political opposition to the administration. With a background of possible policy conflict thus clearly set forth, what will be the consequences of new developments in Congress and among the federal agencies respecting various utility industries during 1959?

THE "loyal opposition" to the Eisenhower administration did not wait for the convocation of the 86th Congress to outline views and objectives to be pursued on the legislative front. But there have been so many voices speaking for the "loyal opposition" that the Washington observer finds his task of analysis and prediction unusually complicated at this threshold of the year 1959.

Who really speaks for the Democratic majority in the new Congress? Is it the so-called "Advisory Council," composed of self-avowed liberals, such as Democratic Chairman Butler, former President Truman, and Adlai Stevenson, titular head of the party? Or is it the time-tested Democratic leadership of the "Texas boys," Speaker of the House Sam Rayburn and Senate Majority Leader Lyndon Johnson? Will the shrunken Republican minority be able to form an effective coalition with more conservative Democrats, as in the past, on major matters of legislative policy? Will the rivalry of the

*Editor, PUBLIC UTILITIES FORTNIGHTLY.

"presidential derby," including such hopeful contestants as Senators Kennedy of Massachusetts and Symington of Missouri, cause them and others to gear their pace during the coming year to the opportunities for the eventual nomination of their party?

THE answers to these questions, steeped with partisan considerations though they may seem, will have an undoubted bearing on the future of important bills introduced, considered, and possibly enacted during the coming year. For example, there is the question, recently agitated, of cutting down the power of the House Rules Committee. The House Rules Committee, admittedly conservative in its outlook as compared with the House as a whole, was probably the decisive factor in blocking a Senate-approved bill at the last session of Congress to permit the Tennessee Valley Authority to finance its own expansion by issuing its own securities. The liberal wing of the Democratic party has complained that the House Rules Committee, which has not been greatly altered in its controlling leadership by the recent election, has been highhanded.

Yet the House of Representatives, with 435 members, and in which nearly 5,000 bills were introduced during the last session, has to have some kind of traffic policemen. Otherwise it could never get things done, because the very limitations of the calendar would hopelessly clog the avenues of legislative progress.

This writer believes that, despite all the thunder on the left, the House Rules Committee and the House leadership will *not* be greatly disturbed in the coming session. But that does not mean that the overall temper of the House will not be moved a few degrees leftward of the 1958 position of the House. It will be so moved. But it will be the prevailing sentiments of the majority of the newly elected House which will be responsible—not short cuts, such as changing the rules, or throwing out the old leadership. The final decision of the House can always be changed, on petition, by a vote of the clear majority regardless of the Rules Committee. But that is something quite different from firing the traffic policemen and letting the congestion get out of hand.

COMING now to measures of special interest to the public utility industries and to public utility regulators, the outlook for 1959 is one for increased legislative activity as compared with the experience of 1958 and 1957. There will be more bills introduced and more bills passed. There will probably be some vetoes in the bargain. The net result is likely to be somewhat less in favor of the position taken by the public utility industries on such legislation.

In plainer words, it promises to be a year of "agonizing reappraisal," to use that famous expression of John Foster Dulles. The public utility industries are going to have to reappraise their position on more than one piece of legislation before the 86th Congress finishes its work in December, 1960. Just how much of this reappraisal must be done during the coming calendar year will depend on a number of factors, including an almost certain volume of counterirritation in the form of international tension, arguments over defense spending, foreign aid, agriculture controls, etc. And, of course, there will be

No Errors in Predictions for 1958

(Here reproduced is the exact text of predictions made by Mr. Welch in his "Outlook" article for 1958. Not one went wrong, although there is still a delay on item No. 8.)

1. *"Breakers ahead for federal commissions.* The staff of the Moulder Committee, otherwise known as the House Subcommittee on Legislative Oversight, is planning some uncomfortable moments during the coming year for federal commissions and regulated industries. The idea is to show that regulated industries have been more liberal than proper in dispensing hospitality, etc., and too informal in contacting federal regulators and commission staff. First on the carpet will be the FCC for reported favors done by successful TV applicants in controversial cases." *Right, as predicted.*

2. *"No gas legislation.* As for proposed amendments to the Natural Gas Act, the coming congressional session may see a double feature—the Harris Bill to relieve producers of full-scale FPC regulation and a bill to allow pipeline companies to file rate increases under bond such as recently thrown out by a United States circuit court of appeals in the so-called Memphis case. The outlook, however, is against final action." *Right as predicted.*

3. *"No changes in taxes.* Despite advance estimates of increased government tax collections and special efforts by the telephone-telegraph industries to get rid of their 10 per cent excise taxes, tax reductions for any kind of business look pretty hopeless for the coming year." *Right, as predicted.*

4. *"No TVA legislation.* For the first time since the Eisenhower administration took office, TVA will be under majority control of directors of the President's own choice. There will doubtless be an effort to revive or compromise various proposals to put the TVA on a self-sustaining basis through the issuance of revenue bonds, etc. But the Democratic majority in Congress, feeling a victory in their bones during the coming congressional election next fall, will not be disposed to accede to administration ideas. Result: stalemate for another year." *Right, as predicted.*

5. *"Public ownership in the Northwest.* The next session of Congress is likely to witness a fight by the government power advocates against efforts of public utilities to build badly needed power projects in the Pacific Northwest. The Snake river licenses for the Idaho Power Company (including Hell's Canyon) will not be disturbed, although they will be raked over again at length. But private company proposals to build a dam at the Mountain Sheep site, if approved by the FPC—as seems likely—will unleash a new drive for a law to curtail FPC licensing powers. It will not succeed because of the veto power of the White House. But it will make political medicine for the campaign." *Right, as predicted.*

6. *"Economy wave and public projects.* The congressional majority will protest the administration's efforts to offset the tremendous new additional expenditures needed for missile developments by slashing public works programs. Actually the Reclamation Bureau and Army Engineers' projects may feel the effect of the economy ax, but such political favorites as the cheap REA interest rates will not be changed." *Right, as predicted.*

7. *"Atom plant building by AEC.* Notwithstanding the economy drive to offset missile expenditures, there is a good chance that Congress and the administration will agree that the AEC should directly build more nuclear power plants. The old Gore-Holifield Bill will be dusted off and given a new look with fresh emphasis on the argument that 'We cannot let Russia get ahead of us in this field.' The AEC hitherto adamant against being diverted into power plant business may have to yield ground to go along with Congressmen who think that AEC should lead the way in this field." *Right, as predicted.*

8. *"FCC and the telephone companies.* Still pending before the FCC are several very important matters affecting the telephone companies. Specifically there is the question of whether Bell companies should be permitted to lease private mobile radiotelephone systems. There is also the question of allocation frequencies in the microwave area. As to mobile radiotelephone, the FCC will probably authorize the telephone company tariffs, notwithstanding Justice Department opposition. The microwave radio frequency proceedings, however, are so broad and complicated that it is doubtful if the FCC can dispose of this matter entirely during 1958." *Both cases are still pending with the FCC.*

9. *"State regulation.* Continued inflation is bound to result in at least as much rate case activity as in 1957. As in the past several years, the increasing disparity between cost and value in public utility plant investment will keep up the pressure to examine or re-examine traditional attitudes on the cost base, depreciation theories, etc. New state legislation, however, is not likely to be forthcoming." *Right, as predicted.*

10. *Accelerated depreciation.* The arguments over whether to 'normalize' or not to 'normalize' income tax expenses for utilities taking advantage of accelerated depreciation deductions will continue to occupy the attention of many state commissions." *Right, as predicted.*

the inevitable crosscurrents of political fortunes. With a wide-open presidential race coming up for both parties in 1960, it will be impossible to divorce politics from almost every action of Congress in the field of domestic legislation.

With these words of caution in mind, let us now examine some matters almost certain to arise in the coming year, which fall into the broad category of "public utility interest."

1. *TVA's self-financing bill.* As already stated, only the House Rules Committee blocked a Senate-approved bill at the last session which would have permitted TVA to finance its own expansion by issuing its own securities. This bill was objectionable not only to the investor-owned utility industry, but to the administration as well—particularly the Budget Bureau. The administration objected to that provision of the bill which would exempt TVA from the Government Corporation Control Act, requiring Treasury approval of proposed bond issues. The investor-owned industry greatly opposed the possibility of unlimited TVA expansion from its present territorial area of operation.

As a result of determined opposition by Chairman Smith (Democrat, Virginia) of the House Rules Committee, the bill died with the session, despite last-minute efforts of House Speaker Rayburn to revive it. The prediction is now made that a TVA-financing bill will probably be passed at the coming session. In its initial form it will not vary greatly from the Senate-approved version of 1958. But concessions may have to be made by the bill's supporters to obtain White House approval. Such concessions would probably limit TVA to its present area of operations and give the Budget Bureau and Treasury Department a greater measure of control over TVA self-financing. On the other hand, a cocky majority in the House could conceivably put a wide-open TVA bill over, despite a presidential veto. It will be a matter of close bargaining; and this reviewer thinks that some concessions *will* be made for limited TVA controls. But one thing seems pretty certain —TVA self-financing will become the law.

2. *No gas producer exemption law.* Although the natural gas producers will find themselves more closely united with the pipeline industry than in previous years on the subject of FPC regulation —there seems virtually no chance that Congress will pass or even consider another bill to exempt the producers from the full regulatory authority of the FPC. In fact, the likelihood of Congress re-enacting a new version of this twice-vetoed controversial measure seems more remote than at any time during the past decade.

Nineteen fifty-nine may be the year of practical realization for the natural gas producer industry that federal regulation is here to stay. This observation is made with the full knowledge that such expressions as "utility-type regulation" are still regarded as dirty words in some oil and gas production areas—almost in the category of that equally controversial expression "integration." But, as in the case of "integration," the inevitability of federal control of natural gas production, no matter how distasteful, seems to be the law of the land. We may look, therefore, to

Atomically Speaking, Utilities Are Criticized Whether They DO or DON'T!

WE will be told that investor-owned utilities are not making headway. And where they are making headway, we shall be told by some union labor leaders that the utility company plans are unsafe. Such as industry plans to build the proposed gas-cooled nuclear reactor in Pennsylvania. The criticism is mainly that employees and the public may be exposed to risks and radiation, explosions and other hazards. The unstated implication is that Uncle Sam's atomic power plant could never entail such risks.

Thus, the electric utilities face criticism from such quarters, whether they act, or fail to act, on atom plant building plans. The real objection, of course, of such critics would seem to be based on the assumption that any power plant, not built at the expense of the federal taxpayer, is a blundering disregard of the public interest.

see the production industry, together with the FPC and allied segments of the natural gas industry, facing up to the need for living with the present law, instead of trying to change it by a congressional act which will not come to pass. Much can be done and probably will be done at the regulatory level to make producer regulations more workable, if not more palatable. And if progress along these lines is achieved in the coming year, that will be at least one solid accomplishment. But it will probably take more than one year for some producers to concede that they are "in the Army now," as far as public utility classification and FPC regulation are concerned.

3. *Other gas legislation.* A good many lawyers and regulators were surprised when the U. S. Supreme Court, by a 5-to-3 vote, recently reversed the U. S. circuit court of appeals for the District of Columbia in the celebrated Memphis case. This writer was among those who felt, solely on the basis of past performance, that a majority of the court would barely affirm the lower court by requiring pipeline companies to obtain the advance consent of their customers to file tariff increases under § 4 of the Natural Gas Act. The Harlan opinion in the Memphis decision of December 8, 1958, not only reinstalled the effectiveness of the filed tariff rate increase procedure, but it also had a number of interesting by-products.

The Supreme Court relieved Congress, for example, of any necessity for clarifying the rate-making provisions of the act. It served notice on regulatory extremists that the Natural Gas Act was not passed by Congress solely to assure consumers of the lowest possible rate without regard for any protection of the interest of the regulated gas industry. And it will probably provoke some agitation in Congress from

the other direction—bills to reinstate the Memphis decision by statutory amendment to the Natural Gas Act. This writer does not give such legislation any chance of passage.

More serious, however, for the gas and oil industry, will be the drive already being mobilized by Senator Proxmire (Democrat, Wisconsin) to wipe out the present 27 per cent depletion tax allowance. Right after the election Senator Proxmire indicated that he was pretty sure he had enough votes to put this across. More recently Senator Monroney (Democrat), from the gas-producing state of Oklahoma, said that he thought there were enough votes to block it. The outcome looks like a very close battle, indeed, to this writer. In other words, it looks like a tossup and just plain guessing, at this stage, to attempt any forecast as to which way it will go. The final decision may turn on a degree of compromise. The depletion allowance may be cut down rather than cut out. The outlook will be clearer on this when the White House clearly indicates its position, which now seems to be the subject of conflicting rumors.

4. *No change in REA law or policy.* Already this writer can see four distinct moves in the next Congress, now shaping up, to alter the policy and activities of the Rural Electrification Administration. Two of these will come from the left and two will come from the right—as those terms are loosely used in the ideological sense. The result will be a standoff, with nothing much actually done to change the present form or scope of operations by REA.

First, there will be an effort, already promised by Budget Director Stans, to raise the interest rate on REA loans from its present subnormal and unrealistic level of two per cent. It will fail. Likewise, from the same quarter will come an effort to taper off REA appropriations for new loans and to encourage REA borrowers to go to private sources for their financing. This, too, will fail. As during the last six years a majority of Congress, notwithstanding administration wishes, will keep REA appropriations to the level to which the administration did not want it to become accustomed. During the present fiscal year (1959) this comes to $317 million for electric loans and $67.5 million for telephone loans, with a $25 million contingency fund. Do not look for that level to be greatly altered in the coming fiscal year, no matter how much less the administration recommends.

Now let us look in the other direction—the direction from whence comes the voice of the REA co-op lobby. Last year it made a strong effort, in the form of the Humphrey-Price Bill, to "emancipate" the REA from the policy control of the Secretary of Agriculture. Another strong attempt will be made next year. This, too, will fail, although it may take President Eisenhower's veto to keep the law off the books. Another effort to liberalize REA operations from the standpoint of the co-op lobby may take the form of a measure to annul a Comptroller General's ruling against the use of REA funds to finance co-operative extension of service to customers for whom privately owned electric utility service is already available. There has even been talk of legislation to make it harder for privately owned companies to buy out REA co-ops. It does not seem

Predictions of Events for 1959

(Here is a summary of the things likely to occur in Washington of special concern to the public utility industry.)

1. *TVA self-financing bill.* In the new Congress a bill to permit TVA to fiance its own expansion by issuing its own securities will be passed and it will become law. The administration, as the price for the President's signature on such a bill, may obtain some concessions in the form of restrictions set by the Comptroller General. But it will not be satisfactory legislation for the investor-owned electric utility industry.

2. *No gas producer exemption law.* The independent natural gas producers are doubtless still hopeful that Congress will one day re-enact some version of the twice-vetoed producer exemption bill. But the outlook for such a law to relieve producers from the full jurisdiction of the Federal Power Commission under the Natural Gas Act is probably worse than at any time within the past decade.

3. *Other gas legislation.* The recent U. S. Supreme Court decision upholding the FPC in the so-called Memphis case relieves Congress of any need for clarifying the rate increase provision of the Natural Gas Act (§ 4), but it may also result in new bills (with little chance of success) to *require* pipeline companies to get advance consent of customers to file rate increases even under service-type contracts. More serious for the gas and oil industry will be the drive certain to be made for the elimination or curtailment of the present 27 per cent depletion tax allowance. This looks very close, with the outcome a tossup.

4. *No change in REA law—or size of appropriations.* The administration will try to taper off REA appropriations for new loans and to increase the interest rate. But Congress will keep REA spending in the manner to which it has been accustomed during recent years, and will otherwise not change the law. On the other hand, a bold attempt of the REA co-op lobby to make REA independent of the Secretary of Agriculture will not succeed.

5. *A hard battle for a Columbia Valley Authority.* The administration, particularly the Comptroller General, is opposed to the unlimited use of the federal corporation device, which would result in a virtual regional autonomy. A dingdong battle will be waged, probably without a final decision in 1959. President Eisenhower's veto may be necessary, however, to block eventual enactment of a law displeasing to the administration.

6. *AEC atomic plant building.* The public power lobby will be out in full force during the coming year to write more legislation compelling AEC to build atomic power plants. The AEC will probably be first to yield to some extent before the heavy Democratic majority in the next Congress.

7. *Rate regulation at the state level.* Just as there were more rate cases in 1958 than in 1957, a continued increase in the number of cases before the state commissions can be expected for 1959. Furthermore, with inflation likely to continue, there will be more agitation for revision of rate base and rate of return procedures. However, state legislation in this area will not be very productive despite the fact that 45 out of 49 state legislatures will be meeting in regular session. Although still in the minority (by about 2 to 1), the state case trend continues towards recognition of value as distinguished from original cost.

8. *Legislation affecting telephone companies.* The perennial attempt to cut down or cut out the federal telephone excise taxes will be no more successful this year than before. On the other hand, we see difficulties in the path of the joint federal-state proposal to turn over a part of federal excise tax collections to the states in return for their acceptance of certain welfare responsibilities. The minimum wage will probably be increased from $1 to $1.25 and the exemption in the present Fair Labor Standards Act for operators at small telephone exchanges may be wiped out—although final action on such measures may not be completed in 1959. Labor bills generally will have strong support in the next Congress.

9. *Telephone cases before the FCC.* The FCC will probably uphold its examiners' decision approving the Bell system acquisition of independent company properties in Wisconsin. Two other major telephone cases before the FCC are now given less than 50 per cent chance of success: (1) Bell system's effort to file tariffs to cover lease-maintenance mobile telephone service on a regulatory basis, (2) the industry's effort to get more microwave frequencies. The Bell system's 1956 consent decree ending the Western Electric antitrust suit may get more critical attention from a House Judiciary subcommittee.

10. *Legislative Oversight Subcommittee.* The House subcommittee investigating improper influence on the federal commissions will make a critical report early next year and will continue in the business of checking up on the commissions. But the effort to obtain procedural reforms by legislation are likely to get fouled up in congressional controversy.

likely that such extreme legislation will get on the statute books—not, at least, as long as Ike is in the White House.

5. *A drive for Columbia valley legislation.* Another measure on which the President's veto power may have to be invoked is a strong drive being mobilized by Senator Neuberger (Democrat, Oregon) for his latest version of a Columbia Valley Development Corporation. The Oregon Senator has endeavored to sugar-coat this pill with a revision of the "preference clause," under which investor-owned companies in Oregon could at least share power from federal dams. Under present law they might have to sit idly by and watch the lion's share of such power being sold under the "preference clause" of the present Bonneville Power Act to government power agencies in Washington state and elsewhere.

But the Neuberger Bill is still only an up-to-date rehash of the old Columbia Valley Authority. It will stir opposition from a number of quarters. Private companies will object that their properties could be expropriated. Regional interests will object that the new setup would be more autonomous and authoritarian than even the TVA. Under self-financing provisions it would be largely free of congressional purse strings and administration apron strings. It would cut clear across the authority and plans of such old-line agencies as Army Engineers and Interior Department.

Nevertheless there is powerful support for Senator Neuberger's measure, and a hot battle is likely to be waged in the next Congress, with the final battle perhaps going into the year 1960. Based on past performance, especially the strong opposition registered by his Comptroller General, President Eisenhower would be opposed to such a bill and would veto it if necessary. On that basis prediction is made that Senator Neuberger will not get his law in 1959 and probably not in 1960.

6. *AEC atom bomb building.* We can expect the government power lobby to be out in full force during the coming year to write more legislation compelling the Atomic Energy Commission to build atomic power plants as a direct federal government responsibility. Senator Gore (Democrat, Tennessee) is already calling for an all-out drive in this direction to save the nation from the danger of falling behind Soviet Russia. Nobody knows for sure just how many atomic electric power plants Soviet Russia has, and Khrushchev is not telling even Senator Humphrey (Democrat, Minnesota). But we can be certain that all the arguments of those who are in favor of federal power or nothing will be trotted out.

We will be told that investor-owned utilities are not making headway. And where they are making headway, we shall be told by some union labor leaders that the utility company plans are unsafe. We shall be given the patronizing argument that electric utility companies, organized on a profit motive basis, cannot "reasonably" be expected to spend the necessary money to do the necessary work of development and to take the necessary financial risks and make the necessary sacrifices. The alternative must be to put Uncle Sam into the atom plant business without regard for competitive costs of electricity generated with conventional fuels.

Irregularity Could Become a Hunting Ground for Lawyers

"WHAT . . . is going to come of the recommendations already made for 'reforming' regulatory commission procedures so that commissioners do not become the subject of improper influence? The Justice Department has suggested . . . that parties found to be seeking to exert undue influence should be summarily disqualified. . . . Certainly, actual disqualification on the basis of irregular procedure is no answer to the problem. . . . no regulatory decision would ever become final. Every contested case could become a happy hunting ground for lawyers trying to dig up evidence of irregularity . . . It could result in even more irregular procedure, by way of efforts of rival applicants to inject the very issue of irregular pressures, just to throw a stronger opponent out of the case. What would prevent the sharp practice of actually 'planting' a rumor to bring about this result?"

It is rather interesting to note, in passing, that criticism has already been heard from this quarter over private industry plans to build the proposed gas-cooled nuclear reactor in Pennsylvania. The criticism is mainly that employees and the public may be exposed to risks of radiation, explosions, or other hazards. The unstated implication is that *Uncle Sam's* atom power plant could never entail such risks. Thus, the electric utilities face criticism from such quarters, whether they act, or fail to act, on atom plant building plans. If they fail to act, the country is in danger of falling behind Soviet Russia. If they try to act, they must be prevented or delayed, so as to be sure that there are no undue risks. The real objection, of course, of such critics would seem to be based on the assumption, as it has been in the past, that *any* power plant, not built at the expense of the federal taxpayer, is a blundering disregard of the public interest. SenatorMorse (Democrat, Oregon) has indicated that he would even be disposed to flood out plants already built in the Hell's Canyon area by the Idaho Power Company, if Congress would only see the light and authorize a high federal dam, even at this late date.

Just the same, the influence of the so-called "public power bloc" will be so strong in the next Congress that AEC may have to compromise the position previously taken by former AEC Chairman Strauss. In other words, Senator Gore will prob-

ably succeed in having Congress pass a bill directing the AEC to build some atom power plants in addition to those already authorized.

7. *Rate regulation at the state level.* At least 45 out of the 49 state legislatures will meet next year. We can expect that a number of bills will be passed affecting utility regulation. But there probably will not be very many new rate base measures, such as those which have been popping up, off and on, in recent years. Governor Harriman in New York will not be around to revive his perennial attempt to put the telephone and transit rate base law in that state on a cost basis. Elsewhere, most of the state legislatures now seem disposed to leave their state commissions to work out their rate policies under present laws.

True, the newly elected governor of California, Pat Brown, campaigned on a promise to see that utility rates were cut to reflect accelerated tax deductions taken by public utility companies—and even to reflect so-called "savings" *not* taken by some utility companies. Now that he has been safely elected, Governor-elect Brown may decide to confine his influence on California regulation to his forthcoming appointments to the commission. Elsewhere there will probably be some overhauling of antiquated or inadequate state regulatory laws. Agitation along this line has appeared in a number of jurisdictions, such as the District of Columbia. But not much basic change is in sight.

At the regulatory commission level, however, we can expect a sustained tempo of rate case activity. This is due to inflation, which will certainly continue throughout the coming year. And so, just as there were more rate cases in '58 than in '57, there will probably be even an additional number in '59. The regulatory commissions themselves and their appellate courts will have to struggle with the recurring problems of adequate return and justifiable rate base procedure under *existing* statutes, and under the pressure of the decreasing purchasing power of the dollar. This means that the perennial arguments over cost *versus* value in the rate base will still be with us. And although recognition of current value is still very much in the minority among the state commissions (about one to two), the long-range trend continues in that direction, as distinguished from strict adherence to original cost.

Two other specialized aspects of utility litigation will continue to occupy much attention at the state level. One of these is the recurrent question—already referred to in connection with California —whether accelerated amortization for tax purposes should be reflected in the rate-making process. In addition to the Federal Power Commission, which is still pondering the question, there is a very definite division among the state commissions as to whether so-called "tax savings" under this form of depreciation allowance should be temporarily assigned to the utilities as a form of tax deferral. The results during the coming year should etch the trend more clearly than can be seen in the present confused picture. This much is certain: Accelerated depreciation will pretty soon go out of style with utilities unless they get some benefit from it, instead of a regulatory penalty for using it.

The second lively issue, at the state level, is not strictly a regulatory matter. It involves the question of validity of state laws permitting utility companies to be compensated from federal-aid highway funds for the expense of relocation of facilities due to highway construction. This type of law seems to be undergoing a phase of constitutional litigation with results, so far, inconclusive. Five state courts have passed on it and probably as many more will do so during the coming year.

8. *Legislation affecting telephone companies.* Telephone companies are going to have at least two problems with the next Congress and they are not likely to come out too well on either. First, there is the perennial attempt of the industry to cut down or cut out the federal telephone excise taxes of 10 per cent on monthly bills and 10 per cent on long-distance calls. A very excellent case can be made, from the standpoint of logic and equity, for the proposition that this is an unfair and discriminatory tax. No other utility service is taxed in this manner. Furthermore, it was originally supposed to be an emergency and wartime tax, but it is still with us nearly fourteen years after the end of World War II—along with the excise tax on liquor, jewelry, night clubs, mink coats, and such other luxury items.

But logic and equity do not always sway Congress when they must be weighed in the scales of fiscal expedience caused by an exploding budget, badly out of balance. The federal government will need tax money wherever it can find it. And the telephone tax brings in too handsome a sum, collected in too easy a manner, for Uncle Sam to give it up without a terrible struggle. A struggle may be made; but this observer does not think it will succeed. On the other hand, the proposal of the Joint Federal-State Committee to have the federal government turn over a part of the federal excise tax collections to the states, in return for their acceptance of certain welfare responsibilities, will also run into trouble. The telephone companies would not like to see this happen because it would virtually assure the perpetuation of the telephone excise tax on monthly bills—once it passes into the realm of state rather than federal revenue-raising tax jurisdiction. A fight will be made for this plan also, but there are enough arguments to give the telephone

❦

¶ "NINETEEN fifty-nine may be the year of practical realization for the natural gas producer industry that federal regulation is here to stay. This observation is made with the full knowledge that such expressions as 'utility-type regulation' are still regarded as dirty words in some oil and gas production areas—almost in the category of that equally controversial expression 'integration.' But, as in the case of 'integration,' the inevitability of federal control of natural gas production, no matter how distasteful, seems to be the law of the land. . . . Much . . . probably will be done at the regulatory level to make producer regulations more workable, if not more palatable. . . . But it will probably take more than one year for some producers to concede that they are 'in the Army now,' as far as public utility classification and FPC regulation are concerned."

companies a chance to block such a move, which would otherwise make the telephone excise tax a permanent nuisance on the American scene. It may become that, anyhow, but not necessarily in 1959.

THE second battle in Congress for the telephone companies involves the independent branch mainly. They are the ones primarily concerned in retaining the present exemption of telephone operator wages at small exchanges (less than 750 stations) from the operation of the Fair Labor Standards Act. In 1959, the AFL-CIO will mount an attack on this exemption in the Wage-Hour Law, along with a labor union proposal to boost the minimum wage from $1 to $1.25 an hour. For a number of years the independent telephone companies have been surprisingly successful in retaining this small exchange operator wage exemption. In 1959 this observer believes their luck will run out. Labor union influence will be too strong in the next Congress.

9. *Other telephone problems in Washington.* The Bell system may have its own problem in Congress in 1959 with a subcommittee of the House Judiciary Committee. This is the group headed by Representative Celler (Democrat, New York), and actively prodded by Representative Roosevelt (Democrat, California), which has been needling the Justice Department because of a 1956 consent decree filed in a federal district court in New Jersey. Under that decree the federal government voluntarily called off its antitrust suit against the American Telephone and Telegraph Company by which it originally sought to have Western Electric Company dissolved or divorced from the Bell system. Under the terms of the consent decree the Bell system was permitted to retain Western Electric as a manufacturing subsidiary, provided Western and the rest of the Bell companies confine their operations and activities to regulated telephone service, operations, and requirements.

The Celler-Roosevelt influence was not quite strong enough during the last session to instigate any full-dress investigation along these lines. But it may be different during the coming year, when the complexion of the House Judiciary group may be a shade or two pinker than it was in '58. Representative "Jimmy" gave every evidence of indicating that he thought he had a pretty good issue by the tail. If he gets any encouragement from a majority of the House Judiciary Committee, we shall be hearing more along these lines.

SOMEWHAT allied to the antitrust consent decree mentioned above is an important case still pending before the FCC. This involves the question of whether the Bell system may file tariffs which would cover lease-maintenance of mobile telephone service on a regulatory basis. In two small Connecticut cases the FCC recently decided that the Southern New England Telephone Company could not render lease-maintenance service on a *contract* basis to provide mobile radiotelephone service to customers using radio frequencies. In that case the FCC decided that the lease-maintenance operation violated the 1956 consent decree and it reversed an earlier order granting the radio licenses.

The broader issue still pending before the FCC, however, involves an effort by the Bell system to convert its private contract mobile radio lease-maintenance business into a regulated telephone utility business, through the process of filing tariffs. Justice Department has objected. But if the FCC agrees, the Bell system can go ahead with its lease-maintenance mobile telephone business as a regulated common carrier service, thereby removing it from the restrictions of the consent decree. In the light of its limited decision in the Southern New England Telephone case, and with both the Justice Department and the House Judiciary Committee breathing down its neck, the FCC may decide this one against the Bell companies. This is just guessing, and it is not to suggest that the FCC would be yielding to improper or any other kind of pressure (although there has seemed to be a slight epidemic of that sort of thing recently). This is just plain prognostication, on the basis of past performance and the way the wind is blowing around Pennsylvania avenue.

THE other telephone matter still before the FCC is the broad, drawn-out microwave frequency decision. The telephone companies, both Bell and independent, have been seeking—along with numerous other users and would-be users of radio frequencies—to obtain increased radio frequency assignments in the microwave bands. This is the segment of the radio spectrum which has become recently opened up for exploration and utilization by reason of improved technology in all branches of the radio art.

But the telephone company's case before the FCC involves some long-range policy questions—such as the conservation of the radio spectrum. The telephone industry has long contended that it can make more effective and economical use of these frequencies than unregulated private industrial users. They have contended that such use by a regulated utility business would be more in the public interest. Unfortunately for the telephone companies' argument, broad and sweeping demands of the Defense Department for radio frequencies in this area have, as a practical matter, undercut the policy question. The FCC has uncritically granted the defense agencies what they asked. Yet, the telephone companies' arguments are not altogether moot. The policy issue is still theoretically pending for decision as between telephone companies and other industrial applicants. But under the circumstances the FCC is not likely to be in too great a hurry.

There is an important international conference on frequency allocations scheduled for mid-1959. After this conference the FCC will then have a better opportunity of considering the policy questions raised by the telephone companies. The long-range implications are, of course, very important for the telephone industry. As congestion in this area—previously considered to be open to an infinite number of frequencies—becomes more apparent, the cogency of the telephone industry's position should impress the FCC.

10. *Legislative Oversight Subcommittee.* Few will deny that, from a strictly political standpoint, the Legislative Oversight Subcommittee of the House of Representatives paid off very

handsomely in the 1958 congressional campaign. Without attempting any evaluation of the Sherman Adams, Richard Mack, and other subcommittee "cases" which found their way into the campaign on a partisan basis, candor requires recognition of the fact that they did become issues, valid or otherwise.

Now the question arises whether this House investigation of the federal regulatory commissions will be continued. This observer feels that it will; but on a lower key and with less spectacular consequences. The consequences may be important, just the same, from the standpoint of regulation. What, for example, is going to come of the recommendations already made for "reforming" regulatory commission procedures so that commissioners do not become the subject of improper influence? The Justice Department has suggested—in the recent retrial of the Miami television case before a special FCC examiner—that parties found to be seeking to exert undue influence should be summarily disqualified. The chairman of the FCC in a letter to the chairman of the House subcommittee, Representative Harris (Democrat, Arkansas), has urged legislation that would make it improper for the commissioners and their staffs to accept favors. Parties to FCC cases or others representing parties to cases seeking to make improper contacts along this line would be penalized and such activity would be made illegal.

But the outcome of all this is very foggy indeed. This observer can see difficulties in both the Justice Department's and the FCC chairman's proposals. Certainly, actual disqualification on the basis of irregular procedure is no answer to the problem. Under the Justice Department plan, no regulatory decision would ever become final. Every contested case could become a happy hunting ground for lawyers trying to dig up evidence of irregularity for the advantage of disgruntled unsuccessful parties. It could result in even more irregular procedure, by way of efforts of rival applicants to inject the very issue of irregular pressures, just to throw a stronger opponent out of the case. What would prevent the sharp practice of actually "planting" a rumor to bring about this result? In the recent Pittsburgh TV controversy, involving unsubstantiated charges against a former FCC chairman, it seems pretty obvious, from testimony before the House subcommittee, that an effort was actually made to "plant" a rumor, with a view to having the FCC chairman disqualify himself or make his vote open to later question.

As to present FCC chairman's recommendations, there is absolutely nothing in the legislation he proposes to have Congress pass which the FCC could not do, and should not do *now*—right away—under its own rule-making authority. Has regulation come to such a pass that commissioners have to ask Congress to pass a law to keep them honest or observing of proper ethical conduct? On the other hand, one of the great virtues of commission regulation has always presumably been its informality. When all is said and done, the final question will always be one of the integrity and ability of the individual commissioner. If he has the proper qualities nobody will have to tell him how to conduct himself or how to resist im-

proper influences. No law or canon of ethics, on the other hand, can ever convert into a wise and honest official one who was not so in the first place.

WHAT Congress will have to consider in all this discussion is the paramount question of *what is in the public interest!* Should the people of a given community be condemned forever to inadequate or second-rate television or utility service by an honest operator because a rival applicant, able to render much better service, has been guilty of improper conduct—or his lawyer on his behalf? This writer believes that when Congress faces this question, as it may in 1959, it will recognize that regulatory decisions should be made on the basis of which can give the best service to the public. If, in addition to or aside from that question, somebody is found to be engaged in shenanigans, that may be reserved for the attention of disciplinary or enforcement authorities, subject to the usual fines, punishment, jail, disbarment, etc.

Altogether, the outlook for legislation along this line is too muddied, at present, to risk any definite forecast. The subcommittee is likely to get into investigations of other commissions beside the FCC, which has been so long under the spot light. Then, too, there is the matter of activities by Congressmen themselves. Maybe Congress will decide to let the federal commissions write their own canons of ethics.

IN conclusion, on the balance, it looks like a rather difficult year ahead for public utilities and public utility regulation, as far as Congress is concerned. The respective industries can expect some unwelcome political attention and criticism, and perhaps some legislation quite distasteful to them. But there never was a lean year that was not followed eventually by a fat year. With a stabilized economy, an opportunity to make record strides in the fulfillment of their public service obligations, the utility industries themselves can become their own best advertisement. If the full potential of public confidence, and recognition of their magnificent performance, is realized by the public utility industries in 1959, it could very well become a *golden* year of achievement—regardless of how many clouds come and go on Capitol Hill under the puffing and blowing of political winds.

"IF we are to survive, labor's political power must now be opposed by matching force, and there is no place in the United States where such a force can be generated except among corporations that make up American business.

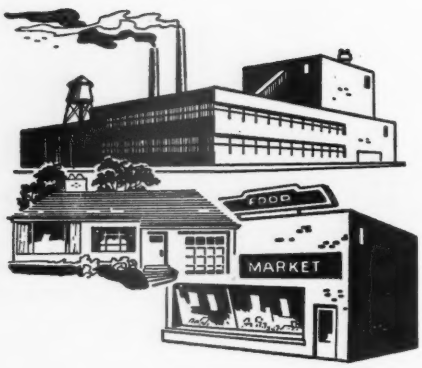
"For many years Gulf, together with most other American corporations, has been so busily engaged in business activities that politics has been ignored. Whether we want to be there or not, Gulf, and every other American corporation, is in politics, up to its ears in politics, and we must either start swimming or drown."

—ARCHIE D. GRAY,
Senior vice president, Gulf Oil Corporation.

The Impact of Chemical Industry On Electric-Gas Utilities

PART I

By C. E. WRIGHT*



Here is an almost unbelievable account of the amazing expansion of the chemical industry. Hitting only the high lights sifted from a mountain of material, Part I of this three-part narrative depicts the chemical complex of Texas, the petrochemical boom in Louisiana, and chemical progress in Arkansas and Oklahoma.

THE electric power industry and the natural gas industry are outstanding beneficiaries of the tremendous expansion of chemical processing facilities in recent years. Nearly all sections of the country have shared in this expansion to some extent, although more than 60 per cent of the new plant expenditures from 1957 through 1959 have been scheduled for fourteen states in the South and Southwest. Texas and Louisiana have been consistently far in the lead among the southern states.

An example of what chemical industry expansion has meant to some electric power companies is the experience of the Gulf States Utilities Company of Beaumont, Texas, which serves the booming Beaumont-Port Arthur-Orange area in Texas and the Lake Charles and Baton Rouge areas in Louisiana. In 1957 Gulf States delivered 507,277,000 kilowatt-hours to chemical companies, of which there are twenty-five of major size in its area.

The company's estimate for 1958 is 825.5 million kilowatt-hours, an increase of 57 per cent in one year. Its projection for 1959 is 1,506 million kilowatt-hours, or 197 per cent over 1957, while for 1960 it is 1,761,700,000 kilowatt-hours or an increase of 249 per cent over 1957.

In its Texas area, Gulf States serves such companies as du Pont, Allied Chemical, Mathieson, Columbia Carbon, Koppers, Firestone, and others, while in Louisiana its customers include Dow Chemical, Mathieson, Davison, Firestone, General Chemical, Grace Chemical, United

*Free-lance writer, resident in Jacksonville, Florida. For additional note, see "Pages with the Editors."

States Rubber, and other nationally known companies.

ONE of the strong attractions for this grouping of chemical companies in the Beaumont-Port Arthur area is the great concentration of petroleum refining capacity. Six refineries there represent about 13 per cent of the nation's petroleum output. The Lake Charles area has two large refineries and Baton Rouge has one. These refineries are actually chemical plants, as they turn out hundreds of different products.

"These areas provide other advantages," says E. L. Robinson, vice president of Gulf States. "They are on deep water, providing water transportation along with rail, air, and highway transportation. All necessary resources, such as land, fresh water, natural gas, electric power, petrochemicals, salt, sulphur, shells, etc., are abundant."

While Gulf States represents one of the exceptional instances of the impact of the burgeoning chemical industry on electric power consumption, there are others of outstanding importance. Possibly no other area of the country of equal geographical size has shown the chemical industry growth of the Houston-Gulf coast area. But there have also been marked advances in other sections of the country.

Chemical Plant Construction $1.3 Billion

THE Manufacturing Chemists Association, with head office in Washington, D. C., makes an annual survey of chemical plant construction. Its survey published early in 1958 (another will be published early in 1959) showed completion of 309 domestic construction projects in 1957 at a cost of $1.3 billion. The MCA estimated total of construction expenditures for the three-year period 1957-59 was a record $3.84 billion, representing 750 projects by 344 companies in 400 communities of 42 states. These figures cover manufacturing facilities only, with government-financed construction excluded.

TEXAS, second only to New Jersey in chemical production, leads the nation in total chemical plant expenditures, with $864.8 million for the three-year period. Louisiana comes second with $494 million, West Virginia third with $278 million. Others in the top ten states are Ohio, $228 million; California, $188.7 million; New Jersey, $155 million; Florida, $144.7 million; Tennessee, $127.6 million; Pennsylvania, $120 million; and Illinois, $119.5 million.

Following the top ten states are these additional states in order of their chemical plant expansion: New York, Virginia, North Carolina, New Mexico, Kentucky, Indiana, Georgia, Oklahoma, Michigan, and Mississippi. Regionally, the West-South Central states—Texas, Louisiana, Oklahoma, and Arkansas—lead in total construction for the 1957-59 period, with a total of $1,422,077,000, or well over a third of the country's total. Add to this figure the $688.4 million for the South Atlantic states—Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida—and there is more than half of the chemical expansion area as expressed in dollar expenditures.

The third area in amount of expansion is the East-North Central grouping—Ohio, Indiana, Illinois, Michigan, and Wisconsin. Creation of a large chemical

manufacturing area along the south shore of Lake Erie has been one of the outstanding developments. Next come these regions: Middle Atlantic, East-South Central, Pacific, Mountain, West-North Central, and New England.

THE Securities and Exchange Commission also covers expenditures for chemical plants in an annual survey, but differs from the MCA survey in that it reports on expenditures appropriated only for the year covered. Actual expenditures in 1957 were reported as $1,724 million, largest in the chemical industry's history, while the estimated total for 1958 is $1,388 million, somewhat lower but still indicating that chemical plant expansion will proceed next year at a very healthy pace.

Another difference between the SEC and MCA reports is that MCA covers all chemical construction whether or not the company building the chemical plant is classified in the Chemicals and Allied Products Industry. However, the MCA survey does not cover such industries as petroleum refining, pulp and paper, and cement manufacture as such, but includes only plants which produce chemicals and employ a chemical reaction in the process. If, for example, a pulp and paper company built a chlorine plant, that plant would be included in the inorganic section. A petroleum refinery would not be included, but a refinery's sulphur extraction plant would be. Alumina but not aluminum facilities are included.

Chemicals Multiply in Texas

THE booming Texas chemical industry is served mainly by the Houston Lighting & Power Company, the Gulf States Utilities Company of Beaumont, Community Public Service of Texas City, and Central Power & Light Company of Corpus Christi. Although the chemical industry has been native to Texas since sulphur was first discovered there, marked growth did not start until 1940. Since then every branch of the chemical industry has located there, bearing out the oft-repeated truism that "the chemical industry is its own best customer." Chemicals from sulphur were followed by many other chemical process industries. Salt and petroleum have been widely employed as raw materials for such modern chemical wonders as vinyl compounds, synthetic alcohol, and many others.

The petrochemical industry has completely revolutionized the economy of the

¶ "ANOTHER spectacular development of the petrochemical industry has occurred along 132 miles of the meandering Mississippi river between New Orleans and Baton Rouge, where a billion dollars or more have been spent on new plants since World War II. Many of these are supplied with ethylene products by Esso Standard's huge refinery at Baton Rouge. Sulphur, which Freeport Sulphur Company mines in the delta area, was another drawing card for this tremendous chemical complex, which includes such companies as American Cyanamid, Kaiser Aluminum & Chemical, Ethyl Corporation, Shell Oil and Shell Chemical, Olin Revere Metals, Wyandotte Chemicals, Dow Chemical, W. R. Grace & Co., du Pont, Monsanto, U. S. Rubber, Allied Chemical, and other giants of the chemical industry."

Texas Gulf coast, which produces about 85 per cent of the country's petrochemicals. It produces a large part of the squeeze bottle plastic, polyethylene. At the end of World War II there were only two producers of polyethylene in the area—du Pont and Union Carbide. Today some dozen or more companies produce it. The 550 million pounds Texas produced in 1957 is expected to grow to 1.2 billion pounds by 1962, even though facilities at the moment have outgrown demand.

And then there's polypropylene, a petrochemical plastic, which *Chemical Week* says is "likely to be one of the biggest success stories of the next decade." This is now being made only in New Jersey by the Hercules Powder Company. Industry sources say there may soon be as many as five plants making this new product, some of them in Texas. In fact, Humble Oil & Refining Company has already announced it will build a plant at Baytown, below Houston. Other companies which are surveying the future markets include du Pont, Union Carbide, and Goodrich-Gulf Chemicals.

IN a triangle bounded roughly by Houston, Freeport, and Port Arthur-Orange is a petrochemical complex described as "unlike anything to be found elsewhere in the world." It is called the "Spaghetti Bowl." In this complex are more than 800 miles of chemical pipelines which link plant with plant, often competitors. These pipelines connect 32 major plants and seven underground salt domes along the Houston ship channel from Houston to Texas City; Beaumont, Port Arthur, and Orange in the Sabine river area; and the Dow Chemical cluster of plants at Freeport. There are eight oil refineries in this triangle and such other raw materials as natural gas, sulphur, salt, and oyster shell (for lime). Many of the petrochemical companies whose plants are in this triangle and on the Louisiana Gulf coast would have located elsewhere had it not been for the presence of large quantities of natural gas. Low-cost salt is another important factor.

Many of these processes start with salt. For example, Diamond Alkali Company pipes about 150 million pounds of chlorine yearly to Shell Chemical Company, one million cubic feet of hydrogen daily to Ethyl Corporation, 100 million pounds of sodium hydro oxide a year to Shell Oil, Shell Chemical, and Rohm & Haas, and some 50 tons a day of anhydrous hydrogen chloride to Ethyl Corporation and Rohm & Haas. Ethylene, a by-product of oil refineries, is piped to du Pont, Spencer Chemical, Allied Chemical, Koppers, Monsanto, Ethyl Corporation, and Diamond Alkali. Synthetic rubber plants in the area get butylene for its raw material butadiene from several refineries. Petrotex Chemical pipes butadiene to Goodyear. Butane, ethane-propane mixture, acetylene, and other products are piped in this almost bewildering exchange of chemical raw materials.

WHAT this tremendous growth of chemical manufacture in the Houston-Gulf coast area has meant to the Houston Lighting & Power Company is illustrated by the fact that 1,603,275,000 kilowatt-hours or 21 per cent of the 7,484,215,000 kilowatt-hours distributed in 1957 went to the chemical industry as against 9 per cent for metals and 8 per cent for petroleum. Growth is also indicated as the chemical industry took 16 per

cent in 1954 and 1955, and 19 per cent in 1956.

In its 1957 annual report, Houston Lighting & Power Company noted that "expansion of the area's chemical and petrochemical plants, together with construction of several large new plants, which will utilize the area's reserves of oil, natural gas, sulphur, salt, and fresh water, set the pace of industrial progress in 1957." Growing power needs of the chemical industry required the company to spend $61,756,447 on gross additions to plant in 1957, "an increase of almost 50 per cent over any previous year."

The power consumption of a single large chemical plant is enormous. Take the case of the Firestone Petrochemical Center near Orange, served by Gulf States Utilities. It began operations in June, 1957, and has since been consuming as much electricity as a city of 30,000 people. It has a 9,000-horsepower motor, largest on the lines of Gulf States Utilities, and one of the world's largest. The Firestone plant also uses enough refrigeration to air condition all the homes in Orange.

The plant produces butadiene, the major ingredient of synthetic rubber.

Chemicals Take Lion's Share of Industrial Power

"WHAT this tremendous growth of chemical manufacture in the Houston-Gulf coast area has meant to the Houston Lighting & Power Company is illustrated by the fact that 1,603,275,000 kilowatt-hours or 21 per cent of the 7,484,215,000 kilowatt-hours distributed in 1957 went to the chemical industry as against 9 per cent for metals and 8 per cent for petroleum. Growth is also indicated as the chemical industry took 16 per cent in 1954 and 1955, and 19 per cent in 1956.

"In its 1957 annual report, Houston Lighting & Power Company noted that 'expansion of the area's chemical and petrochemical plants, together with construction of several large new plants, which will utilize the area's reserves of oil, natural gas, sulphur, salt, and fresh water, set the pace of industrial progress in 1957. Growing power needs of the chemical industry required the company to spend $61,756,447 on gross additions to plant in 1957, 'an increase of almost 50 per cent over any previous year.'"

ANOTHER electric company serving the Texas chemical area is Central Power & Light of Corpus Christi. Its industrial output is 21.5 per cent of its total distribution, and much of it goes to chemical plants. The Corpus Christi-Victoria area, the company says, is destined for continued growth and may one day rival the Houston area in chemical manufacture. The first large company to move into the Victoria area was the Aluminum Company of America, which had an aluminum smelting plant in operation in 1950. Besides recently enlarging that smelter, Alcoa has constructed two new units at the same site, a $45 million alumina plant and an absorption plant for natural gasoline.

Du Pont located a plant near Victoria in 1951 for the manufacture of adiponitrile, a fluid used in nylon manufacture, while in 1952 Union Carbide Chemicals Company started operating a huge polyethylene plant at nearby Seadrift. With this big start, the Victoria area seems destined to grow.

Petrochemicals Boom Louisiana

ANOTHER spectacular development of the petrochemical industry has occurred along the 132 miles of the meandering Mississippi river between New Orleans and Baton Rouge, where a billion dollars or more have been spent on new plants since World War II. Many of these are supplied with ethylene products by Esso Standard's huge refinery at Baton Rouge. Sulphur, which Freeport Sulphur Company mines in the delta area, was another drawing card for this tremendous chemical complex, which includes such companies as American Cyanamid, Kaiser Aluminum & Chemical, Ethyl Corporation, Shell Oil and Shell Chemical, Olin Revere Metals, Wyandotte Chemicals, Dow Chemical, W. R. Grace & Co., du Pont, Monsanto, U. S. Rubber, Allied Chemical, and other giants of the chemical industry. The Mississippi river, which provides both low-cost water transportation and water for processing, is one reason for the chemical boom in this particular area.

Electric Utilities Benefit

TWO electric power companies that have largely shared in the increased use of electricity by this huge chemical complex are the Gulf States Utilities Company of Beaumont, Texas, whose gains have already been mentioned, and the Louisiana Power & Light Company, one of the Middle South Utilities group. As a result of the greater use of power by these new industries, Louisiana Power & Light Company's president, W. O. Turner, recently announced plans for a new 2 million kilowatt steam-generating station on the east bank of the Mississippi river about 25 miles upstream from New Orleans. This company and others serving farther-north reaches of the Mississippi are expected to gain in the future, as it is predicted that the chemical industry will eventually stretch northward to Blytheville, Arkansas.

Another angle of this tremendous upsurge of chemical processing facilities is that it has contributed to the rapid growth of several cities, notably Houston and New Orleans, two of the fastest-growing cities in the South. "Indirectly, this great chemical expansion has contributed to the growth of New Orleans," says G. S. Dinwiddie, president of New Orleans Public

Service Inc., whose service area is within the city limits. New Orleans and the area southward may be greatly benefited also by the construction of a $96 million Mississippi river-Gulf outlet, which will provide a second deep-water route to the sea from New Orleans. Some 40 miles shorter than the present 110-mile winding journey via the Mississippi, this new water route, 36 feet deep, with a 500-foot bottom width, relatively current free and a straight run to the Gulf of Mexico, is "expected to play an important part in the industrial development of our area and to benefit the entire mid-continent by reducing time and costs involved in shipping," according to Mr. Dinwiddie.

Large acreages adjacent to the new waterway will be available for industrial use. In ten years the company's revenues from electric operations have risen from about $18 million to more than $30 million and its maximum net generating capacity in the same time has risen from 269,000 to 543,000 kilowatts.

Houston's growth, as reflected by residential consumers only, has been phenomenal, raising it to the eighth city in size in the United States. The ten-year increase in residential revenues within the city has been 361 per cent, while rural residential use has gone up 166 per cent. (Houston last year annexed some of its rural areas.)

Arkansas and Oklahoma

IN comparison with Texas and Louisiana, the chemical expansion in the other two states of the West-South Central region, Arkansas and Oklahoma, has not been sensational but steady progress has been made. Oklahoma, in fact, ranks eighteenth among the states in the 1957-59 programs. About $43.5 million will be expended in Oklahoma during 1958-59, which includes $39.5 for projects already begun and $4 million for projects planned for completion by 1960. Organic chemicals, inorganic chemicals, and metals account for 89 per cent of the total.

AN interesting development in Arkansas is the entrance of a natural gas company into the chemical manufacturing field. The Arkansas Louisiana Gas Company of Shreveport, Louisiana, pursuing a policy of diversification, organized a new subsidiary early this year, known as the Arkansas Louisiana Chemical Corporation, to operate the company's eight products extraction, or gasoline, plants. Later a $3 million expansion program was announced for the Columbia plant near Magnolia, Arkansas, adding ethane recovery facilities and allied equipment to increase recovery capacity of other natural gas by-products, including propane, butane, isobutane, isopentane, and natural gasoline. Also, the chemical corporation recently signed a twenty-year lease to operate a government-owned chlorine plant at the Pine Bluff Arsenal near Pine Bluff, Arkansas. Operations were started this fall. The diversification program has given the company a much broader profit-making ability than is possible from federal- and state-regulated gas business.

(Another instalment will deal with chemical expansion and its effect on electric power and natural gas in other areas of the South.)

PART II *of this article will appear in the next issue of the* FORTNIGHTLY.

THRESHOLD PRICES:

A Practical Proposal for Producer Pricing

By the Honorable WILLIAM R. CONNOLE*

The rising level of gas prices should be attacked at its source, which is the price level at which new gas sales are made in interstate commerce, FPC Member Connole believes. He offers an interesting solution to the gas-pricing problem, called the "threshold test," which is simple, certain, practical, and one that can be put into effect immediately.

If the events of the last ten years of the gas industry are any measure of what to expect in the next decade or so, we who are involved every day in one phase or another of the business are in for some exciting moments. Probably we can expect more than our share of frustrations and irritations as well. For certainly no major industry ever had so much happen to it in so short a time as did the gas industry in the post-World War II years!

In a space of not much more than a decade an entire industry has been transformed. The face of a nation has been laced with thousands of miles of highly complex, highly efficient pipelines worth billions of dollars. Home owners in almost every population center, even those of modest size, enjoy or can look forward to enjoying the benefits of natural gas. Energy locked in the thin crust of the earth for billions of years has been released like the genie of Aladdin's lamp to serve the wishes of man. But not even the author of the *"Arabian Nights"* legends dared challenge his readers' imaginations as are ours by the facts of the magic and the power that is ours to command from this slave.

It is natural to expect from so dramatic an expansion that some of its characteristics make a more immediate and lasting impression than do others. Apart from the amazingly ingenious and skillful technical feats of the construction phase, most of these impressions are found in what are variously known as the economics of the business; that is, the regulatory problems or, simply, the dollars-and-cents angles.

This is only to be expected. No business could grow to rank as the nation's fifth

*Member, Federal Power Commission. For additional personal note, see "Pages with the Editors."

largest in a land where bigness is counted in boxcar numbers without causing problems measured in terms of the cash register. And since this is one business where the government looks over the shoulder of almost everyone in it, it was equally to be expected that those problems would involve the people in government who did the closest looking. The relations between the gas industry and the Federal Power Commission are perfect examples. Seldom have more controversies raged over domestic problems than those arising over pricing and rate-making authority of the Federal Power Commission. Contention has ranged from the almost esoteric threads of statutory interpretation tortuously unraveled in the recent "Memphis case" argument before the Supreme Court to the basic question whether there should be any price regulation of the producers at all.

Key Issue—Prices in New Gas Contracts

LET us next consider what I believe to be the most pervasive and fundamental of these pricing questions: the issue of prices in new contracts filed in support of applications for authority to make new sales of natural gas interstate commerce. I consider them the most fundamental and pervasive for two important and simple reasons.

First, since the war every important pipeline rate increase and most of the remaining ones have reflected efforts of the pipelines to recover the added costs of buying gas. In most of these cases the largest proportion by far of the increased revenues ultimately found to be justified were for this purpose. In turn, every significant increase in the cost of buying gas was the direct result of some other purchase at prices higher than had prevailed before.

The second reason the prices in new sales are the biggest regulatory dollars-and-cents problem is the extreme difficulty and long delay in finding a meaningful way to determine whether the increase in general price levels, and in the individual rates as well, is justified within the borders of the Natural Gas Act. For until that problem is solved we have no way of knowing whether the prices being collected are just and reasonable or not.

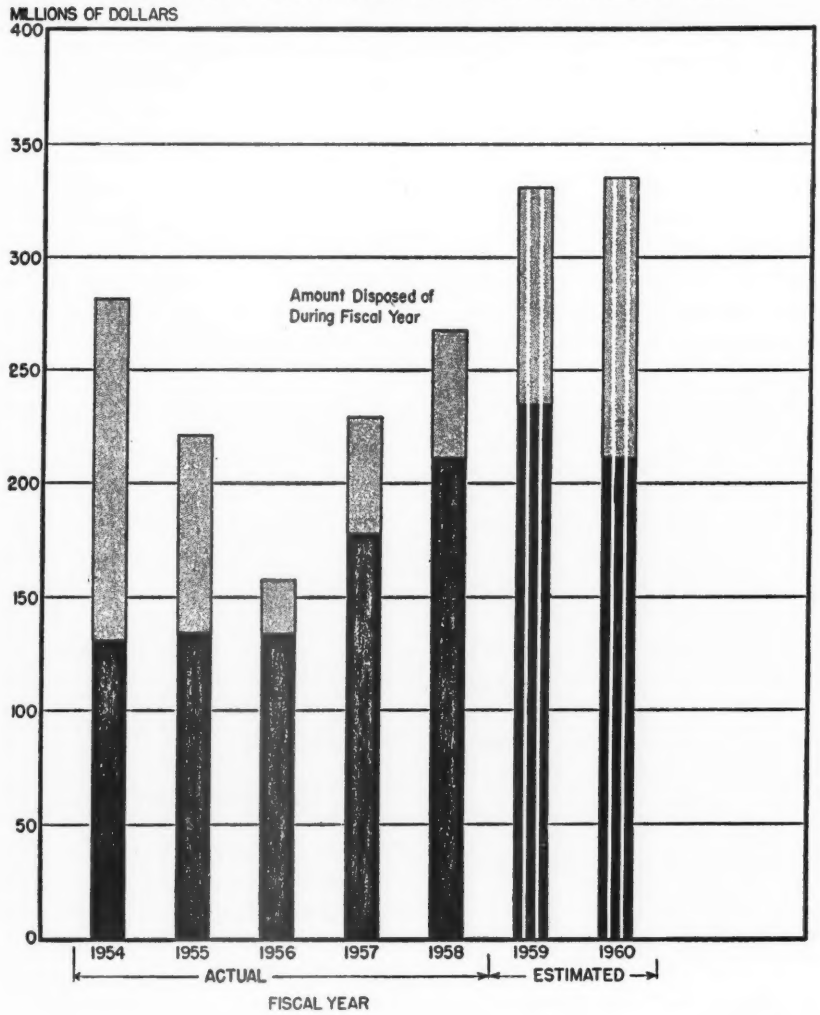
Indeed, I should say that the effect of these new contracts on pricing levels has been so extreme and so important that if there had not been so steep and rapid a rise in prices for new sales there would have been no Phillips case, no independent producer regulation, and no Harris bills.

OF course some would add that there would have been no gas either. And with that statement, there are few, if any, I dare say, who would dare to take issue and match fact for fact, theory for theory. There simply is no way of telling, at this stage of the development of producer price regulation, what level of prices is needed to keep the rigs running and the gas moving. But this, really, is but another way of stating why the problem is so acute.

Now, there are many ways of attacking this question. Differing theories have evolved, numerous attacks and defenses have been made with a vigor that would cheer a 20-year Marine Corps veteran. To the surprise, perhaps, of no one I have my own. My theory has been expressed previously only in rather limited factual con-

CHART I

AMOUNTS IN MILLIONS OF DOLLARS INVOLVED IN PIPELINE GAS RATE SUSPENSION CASES AND THE AMOUNTS DISPOSED OF DURING FISCAL YEARS 1954 THROUGH 1960



texts. For this reason, it is not as fully understood as I should like. However, the importance of the matter involved justifies its discussion, I think, by everyone whose daily life is intimately involved in this business of buying and selling in a governmentally regulated market the energy resource of nature gas.

A Complicated Problem

LET us reflect first upon the magnitude of the problem. To put the matter in perspective, consider the millions of dollars involved in pipeline rate cases. The sums are accurate measures of the impact of rising gas prices on consumers and on the gas industry generally. For pipeline rate increases are soon felt by the purchasing, distributing companies. A helpful illustration appears among the material prepared for submission to the Bureau of the Budget in Washington to support the commission's request for funds for the coming fiscal year. Chart I (page 25) shows that in the last five years, $371,776,600 in annual increased pipeline revenue requests have been disposed of by the commission while $211,513,500 remained at the end of fiscal 1958 to be disposed.

From the same source, an interesting tabulation Chart II (page 29) is available that assigns their proposition of this grand total to three typical long-distance pipeline companies.[1] This chart shows the length of time required for disposition of these companies' rate increases together with the amounts requested and finally allowed by the commission.

There have been very few periods since 1947 when these companies have not had pending before the commission a request for rate relief. I repeat that these are typical companies, not selected for any particular affinity for filing rate increases. For example, at all times since mid-1948, with the exception of the brief period at the end of 1954 and part of 1955, United has had at least one case and at times as many as five cases concurrently pending before the commission. At the present time there are four cases of this company pending before the commission.

I THINK these facts illustrate graphically how the pipeline industry has found it necessary to seek repeated rate increases in order to maintain its financial integrity and to continue to render adequate service. Rising costs of purchased gas account for almost all of those increases. This is due to the nature of the industry. While increased costs of doing business generally have been felt by the pipeline industry no less than by other utilities, the industry is less exposed to some of the more important causes of increases in operating expenses with which other utilities have had to deal. The proportion of total operating expenses represented by labor costs in natural gas transmission is low compared, for example, with experience in the telephone or telegraph or the motorbus industry.

Gas Prices Have Soared

THOUGH spared part of the impact of spiraling labor and other costs, the pipeline industry, caught by skyrocketing demands at the distributor end and skyrocketing prices at the producer end, has found it necessary to absorb an ever-increasing bill for the gas it purchases. In

[1] Northern Natural Gas Company, United Fuel Gas Company, and Tennessee Gas Transmission Company.

Prices in New Sales Contracts Cloud Gas Picture

"THE second reason the prices in new sales are the biggest regulatory dollars-and-cents problem is the extreme difficulty and long delay in finding a meaningful way to determine whether the increase in general price levels, and in the individual rates as well, is justified within the borders of the Natural Gas Act. For until that problem is solved we have no way of knowing whether the prices being collected are just and reasonable or not. Indeed . . . the effect of these new contracts on pricing levels has been so extreme and so important that if there had not been so steep and rapid a rise in prices for new sales there would have been no Phillips case, no independent producer regulation, and no Harris bills."

1948 the cost of purchased gas for transmission companies was about 65 per cent of total operating expenses. In 1957, ten years later, not only had total operating expenses gone up by more than one billion dollars annually as the pipeline network spread throughout the nation, but the cost of purchased gas in that year amounted to more than 77 per cent of these greatly increased operating expenses.

My point is not that the level of producer prices which pipelines have had to absorb is too high. No one knows better than I that any judgment on the substantive merits of today's producer price level would suffer from serious handicaps. The industry and regulatory community are far from agreed on any test that would accurately answer this question.

My point is rather that consumers or regulatory commissions or, for that matter, utility company-purchasers of gas, concerned by the rising level of prices they are compelled to pay, should realize that the place to attack the problem is at its root cause.

I submit further that this root cause is not the pipeline rate increase, not the spiral escalation, not the favored-nation or other increase by producers. I submit that it is found in the price level at which new gas sales are made in interstate commerce.

Southern Louisiana Rates

THE spectacular rate at which this increase has occurred is illustrated with special effectiveness by an examination of the new contracts entered into in south Louisiana. In this area prices were not held in check by any traditional pricing policy established by one or two large purchasing pipelines. In it exploration and development are relatively recent; here several new postwar pipelines have been concurrently bidding for their gas supplies. In Chart III (page 33) there is plotted every new contract entered into since 1943. It shows that gas prices in the area, which were 8 cents per Mcf or less as recently as 1948, have moved steadily and steeply upward in the short ten-year span since 1948 until virtually every contract is currently made at prices reaching the level of 20 cents or higher.

To appreciate fully the impact of this condition, its escalatory force, consider that more than a quarter of all gas marketed by interstate pipelines originated in the parishes whose statistics are plotted on this chart. In fact, four of these parishes, Terrebonne, St. Mary, Cameron, and Vermilion, together produced nearly one-sixth of all the natural gas sold in interstate commerce in the United States in 1956!

RECENTLY the commission has considered a rate increase filing by an independent producer in southern Louisiana in parishes included in the tabulation. It is mentioned only because it is typical and not because it is a horrible example or for any other uncomplimentary reason. The application concerned a favored-nation rate increase for gas sold by The California Company to Southern Natural Gas Company. This increase alone, raising the existing rate 10.17 cents per Mcf (to 23.67 cents), will amount to $2,511,801 annually for this one sale.

Although there is no official indication by the company of the rate changes which activated the favored-nation clause, the recent filing by The California Company of an initial rate of 23.675 cents per Mcf for sales to the same pipeline in the same area would serve to trigger such increase. That rate was filed pursuant to a new contract certificated by the commission by an order issued April 18, 1958, to which I dissented because of the absence of any showing why such an unprecedented price level was required by the public convenience and necessity.

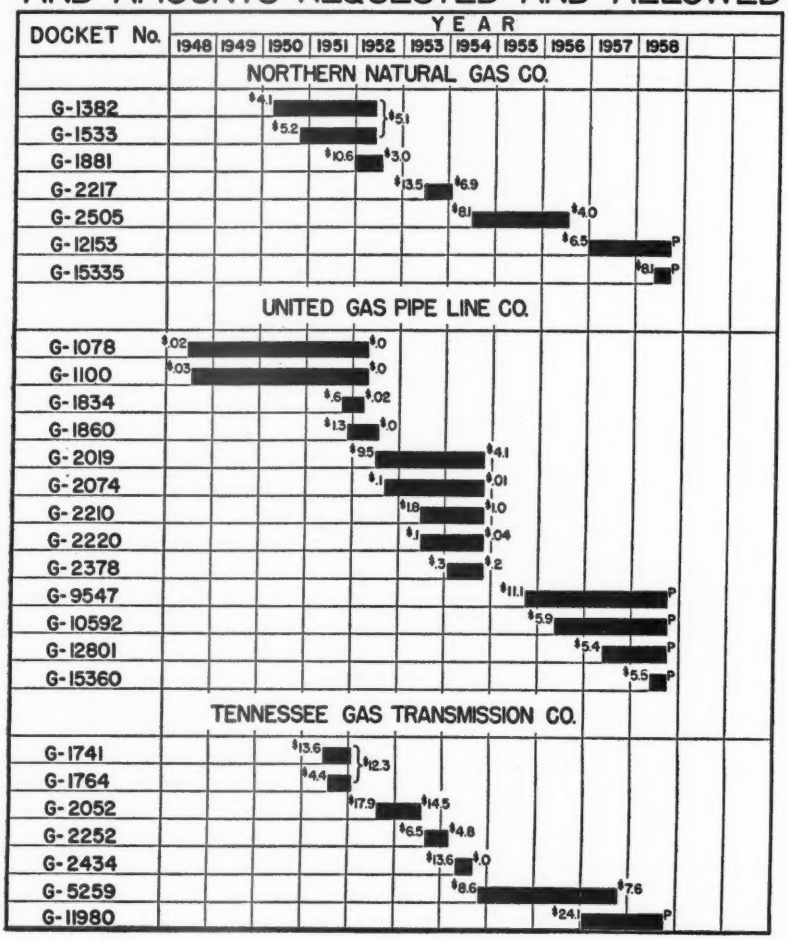
THERE are many other examples which could be cited to show the positive and immediate effect of the steady increase in prices at which new gas is being brought on the market in southern Louisiana. Prices in contracts covering sales to Tennessee Gas Transmission Company are now being redetermined to a level consistent with the three highest rates in the area specified in the contracts. The estimated total increased costs to Tennessee resulting from such increases could amount to as much as $10 million annually.

Control of Prices

LITTLE additional evidence is needed, I think, to demonstrate the validity of my thesis that the rise in the cost of natural gas begins with initial prices for new contracts. Very little additional is needed to demonstrate with equal finality that the time has come for affirmative

CHART II

LENGTH OF TIME REQUIRED TO DISPOSE OF CERTAIN PIPELINE RATE INCREASES AND AMOUNTS* REQUESTED AND ALLOWED



LEGEND

Indicates period of rate proceeding
Number at beginning of bar is amount requested, number at end of bar is amount allowed

P ...Indicates case is pending

* ...Millions of dollars

regulatory action to assure the maintenance of an orderly price structure and to avoid a runaway market.

THE impact of southern Louisiana's rates is the single most important influence on natural gas prices nation-wide at every stage of the business. In that area the forces driving prices upwards towards new altitudes have been steadier and more powerful than in any other part of the country.

In fact, in some other areas, the chief problem some state regulatory agencies have experienced with producer prices has been achieving a *minimum* price. This is particularly the case in Kansas where the corporation commission and the legislature of that state have been busy with that matter for some years.

The volumes of gas produced in southern Louisiana and the extent of the increases in recent years have convinced me that the problem of getting producer price stability will never be solved until this influence is controlled. Until we know what prices are just and reasonable, the commission is helpless to control this upward drive as long as new high prices continue to be negotiated.

Either we must control the initial prices or determine the just and reasonable price. In the absence of either, history shows that rates will continue to rise in southern Louisiana. And because of conditions discussed already this rise will mean a continuing and abrupt rate of change in rates generally.

Since the hope of reaching an answer to the just and reasonable rate seems slim at present, I see no other alternative than to concentrate on the cause, not the effect, of rising prices. That cause, of course, is the increase in initial prices, especially in southern Louisiana.

Several approaches have been suggested to accommodate regulation to increasing prices in new contracts. Generally, the suggestions can be grouped at one or another extreme. In one category are the suggestions that price increase is a natural thing, inevitably resulting from the impact of great demand generated by the increasing availability of natural gas. In this group are found the arguments that the ultimate solution will be reached when what is euphemistically, if inaccurately, referred to as "the law of supply and demand," elevates natural gas prices to levels where prices no longer compete with other fuels. At the other extreme are found various arguments generally concerned with requiring a thorough and traditional utility cost analysis prior to the authorizing of any new sales.

I REJECT both of these polar extremes. I think the one unduly simplifies the problem while the other unduly complicates it. The cost approach is most easily dismissed. We at the Federal Power Commission have been striving for more than four years to solve the knotty problem of cost determination for producing properties.

The results, I believe, speak for themselves. If the commission were to withhold any and all certificates authorizing new sales of natural gas until it had reached a conclusion on proper costing principles, precious little new gas would be flowing through transmission and distributing mains today.

The truth of the matter is that it has been only very recently that the producing industry has buckled down to demon-

strating seriously the best approach to the two biggest problems in this matter of finding costs for producing gas and oil. These problems are, first, the allocation of common production costs between gas and oil as joint products, and, second, the unit for which production costs will be determined.

Fortunately, the records of proceedings now before the commission contain much valuable fact and theory on these two crucial issues and a definitive answer is not far away. Until definitiveness is achieved, however, it is sheer folly to suggest that every application for authority to sell natural gas filed by an independent producer must be preceded by a complete cost showing in order to justify granting it.

ON the other hand, turning to the arguments that the price required by the

public convenience and necessity is to be the level to which prices would rise if unimpeded by regulation, weaknesses of these contentions are immediately apparent.

In the first place it seems a little unfair to expect that producer prices may be expected to rise ever higher because the consumer market will bear the increase, while the profits resulting from this steady increase are confined to but one segment of the industry. No matter how high the price of natural gas theoretically may rise, the regulated pipeline and distributing company is restricted to revenues which will return to it the cost of purchasing that gas, plus a relatively restricted return on the property required to transmit or distribute it.

Should, then, the producer be permitted to realize *all* the increased profit resulting from increased demand? Patently, it seems to me, if the price the commodity can command in an unregulated market is to be the starting point for regulation, the theory should apply to all segments of the industry rather than to one segment only. While I do not suggest that the risk in each segment of the industry is the same, nevertheless, I do suggest that if compensation for risks incurred in discovering, reducing to possession, and delivering gas is to be measured by the value attached to the commodity by the consumer, then the distributing company and the pipeline, as well as the producer, are entitled to share in that compensation.

Noncompeting Price Plateau?

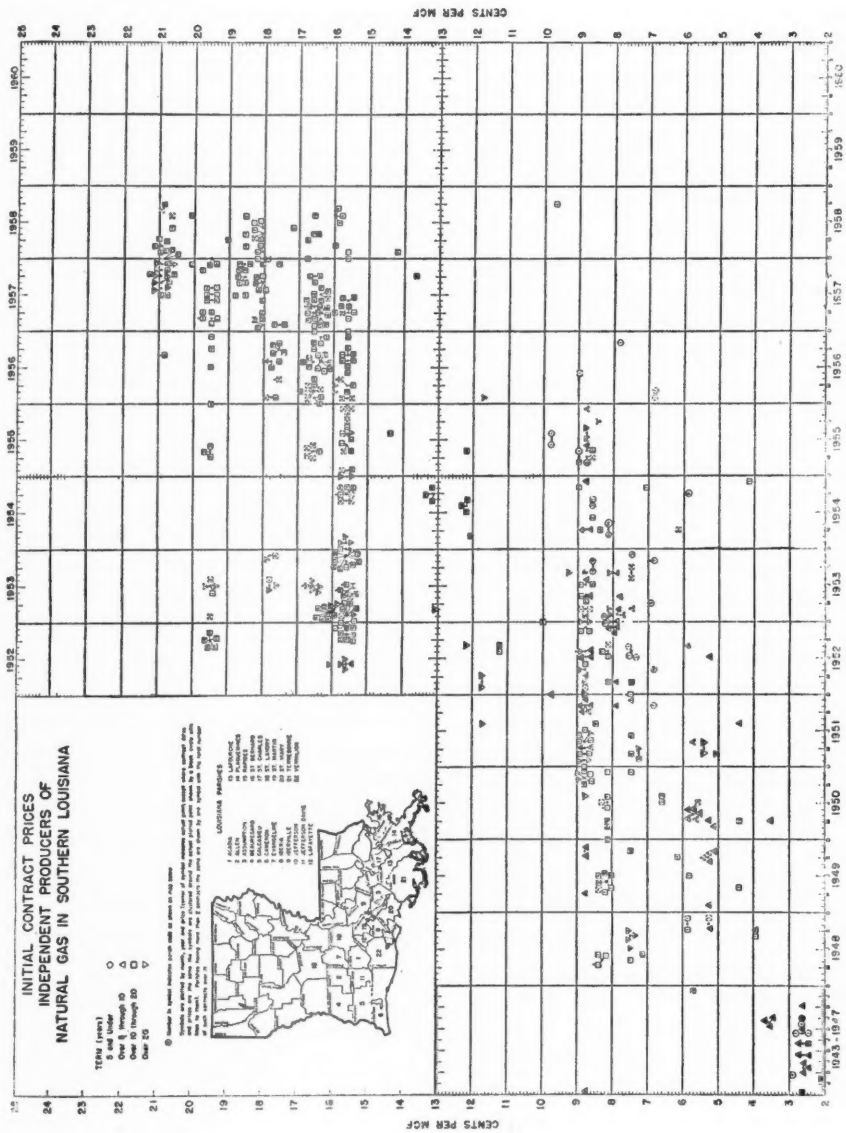
If we were to select as the starting point for regulation the level at which natural gas could no longer compete with other fuels for consumer preference, another problem would arise. That question remains, compete specifically with what? At the present time, the crucial sale by a transmission pipeline or distributing company is the off-peak sale, for without profitable valley sales obviously the price for the volumes sold at peak time will be greatly increased. Presumably, it is with these valley sales that interfuel competition would be measured.

But such competition at the off-peak time is chiefly confined to Bunker C fuel oil and coal. Bunker C is a product of the same producers that produce natural gas. Already there is talk in industry trade journals of the serious inroads natural gas is making into the traditional fuel oil markets of both Bunker C and No. 2 fuel oils. At what point, then, would the commission decide competition had gone far enough? Or indeed, at what point would the producers and refiners and distributors of Bunker C decide competition had gone far enough? The striking anomaly in any effort to equate competition between gaseous and liquid petroleum products is the fact that both are produced together to a very great extent. In other words, the industry is competing with itself.

This strange state of affairs also complicates efforts to allocate the joint costs incurred in producing these two products. It is uncommon, I think, for the by-product to compete with the thing with which it is produced. The textbook examples of cottonseed oil and cotton, of hides and beef, and the like are easily analyzed because the item that is produced along with the main product has an en-

CHART III

CHART III



Note: Prices used do not include production taxes. Prices are expressed in cents per Mcf, converted to 14.65 p. s. i. g. In most contracts the pressure base before conversion was 15.025 p. s. i. g. The difference is approximately .6 cents per Mcf.

tirely different use. Consequently, a sale made at any price helps the principal product as long as the out-of-pocket costs are met.

But not so with gas and oil. From now on, with increasing frequency, new sales of natural gas are replacing sales of oil. What allocation of joint costs to these mutual competitors will be best for consumer and industry? At what point must prices balance out to make the best and most comprehensive use of our energy reserves?

These are a few of the problems that must be met and solved if we decide to let interfuel competition between gas and oil set the limit of tolerance for new prices. They show why it grossly oversimplifies the matter to expect the level of oil prices automatically to set the level of gas prices. We would never know which was the chicken and which was the egg, much less which one came first!

COMPETITION for off-peak sales is probably keenest, however, between gas and coal. Let us consider the coal situation. Here is a commodity which is not wholly unregulated. Coal laid down more than 200 miles from the mine mouth is usually sold at prices, more than half of which consist of transportation charges. Transportation is a regulated cost. The level of coal rates is fixed, among other things, by the shape of the demand curve for the coal; that is, the value of the coal to the user.

Any determination that the price of gas had reached such a point that gas could no longer compete with coal, therefore, ultimately would involve a decision whether the price of coal, including 50 per cent or more transportation costs, was a fair one. This means a decision on the part of both the Federal Power Commission and the Interstate Commerce Commission. The complexity of any such bureaucratic labyrinth as a means of establishing a comprehensive energy policy needs no detailed explanation.

Two-part Solution

ACCORDINGLY, I have rejected in my thinking any of the approaches which depend on competitive fuels exclusively, or require cost-of-service analysis in each case. I am pleased, however, that I am not without solution to the problem. I offer you a solution which is simple, effective, immediate, and practical. Moreover, it will work as well after the solutions to present pricing problems have been accomplished as it does in the formative stage when we are reaching them. I call it my threshold test.

My solution is properly divisible into two parts. The first consists of a final answer, which will be available only after we have solved the allocation problem and other problems involved in finding a just and reasonable price for producers' gas. Once these principles have been fixed and established, gas prices may stabilize at or near the price levels found to be just and reasonable. From that time on new contract prices will presumably stabilize along with them. Of course, there is no way of determining at the present time whether that ultimate level will be higher or lower than the present levels. This much must be said, however, from my own personal conviction. I do not believe it in the best interests of the industry to disturb radically the price relationships that now exist between the various prin-

cipal areas of gas supply. Perhaps in time these relationships between supply areas will display need for modification. That, however, seems a much longer-range aim than we are now shooting for.

Use the "Going Price"

THE second part of my suggestion fills the more immediate need. It is an answer useful in the interim during which we are striving mutually to find the final answer. This tentative answer requires a showing by each applicant for authority to make new gas sales that so much of the public convenience and necessity concept as embraces price has been met. No very extensive showing is needed for this purpose if the proposed sale is contemplated at the price level of a typical average new sale in the given area. This level is to be found by determining the prevalent or dominant prices in the sale area.

Data are readily available from Federal Power Commission files to reach a practical, meaningful, statistically accurate conclusion as to the level at which most gas is being sold in all important areas. Such level, call it a "going price," represents a collective judgment of the price at which it is to be expected the typical average new sale can and will be made. In the absence of proof of special circumstances, each new sale must be considered as typical and average.

This figure, though readily obtainable by producers and pipelines, is naturally subject to some modification to meet criteria of comparability. Of course, it will be difficult to find in some cases because of disputes respecting the area involved and for other reasons. These, however, are not basic problems. They go only to the operation of the method, not to its essential soundness.

THESE minor mechanical problems can readily be solved by agreement once the principle is accepted. I am certain that any such generous level as I have suggested would amply satisfy a producer who was making a substantial new sale. By and large, going prices have escalated sufficiently in most areas of the country that there is little serious danger of confiscation if the threshold is set at the level where, say 80 per cent of the typical sales have recently been made or at which a like proportion of production volumes are transferred.

Now, if a producer has genuine reason to believe that the conditions of his sale are so materially different from the typical sale that he should be allowed to employ a price higher than the dominant price, he should have the chance to prove his claim. Each proof necessarily will differ in detail, but, under standards of public convenience and necessity, the rigors of proof need not be as severe as in a rate

¶ "MY point is rather that consumers or regulatory commissions or, for that matter, utility company-purchasers of gas, concerned by the rising level of prices they are compelled to pay, should realize that the place to attack the problem is at its root cause. I submit further that this root cause is not the pipeline rate increase, not the spiral escalation, not the favored-nation or other increase by producers. I submit that it is found in the price level at which new gas sales are made in interstate commerce."

proceeding pursuant to §§ 4 or 5 of the Natural Gas Act. Certainly, for example, a "full-blown rate case," as one court styled it, would not be required. Equally certain it is, however, that mere recitation of willingness of a buyer to meet the price asked by the producer because no other was available, would not be sufficient to justify departure from the principle of dominance of the prevailing price, suitably modified to the particular circumstances.

This Approach Sparks Action!

THE virtues of my method are that it is certain, it is simple, it is immediate, and it is practical. It is certain because producers and buyers both will know what to expect and, therefore, how to plan ahead. It is simple because it is a readily derived figure with standards not subject to the distortion of subjective interpretation. It is practical because it will permit ample supplies of new gas to enter into the market without delay of complicated proof. Furthermore, it will greatly streamline the presently difficult process of obtaining authority to make new sales by producers. It is immediate because it can be used right away.

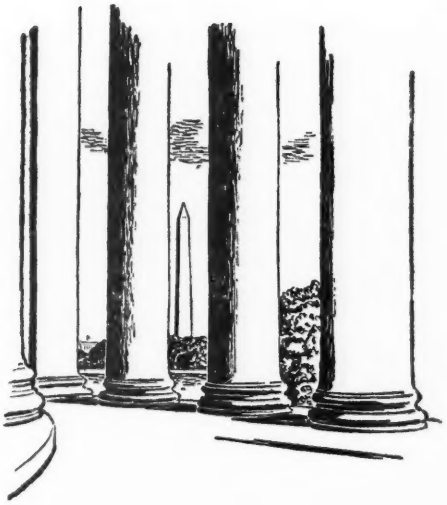
I particularly like this approach because its usefulness is not confined to the period when we are searching for the *ultimate* answer to the regulatory problem. It will be equally useful, for example, in determining whether to suspend new filings made in existing rates. Such a standard, properly and appropriately modified, would have the virtues listed above if applied in the suspension process as when applied in certification process.

THIS approach can be useful in avoiding problems of certification arising after pricing regulation has become more completely understood, for by its nature the level I suggest adjusts itself to the level of prices in the area. If the prevailing level rises the standard rises accordingly. If the going level falls for any cause as a result of action by the Federal Power Commission, the standard is lowered, too.

Finally, no one would be injured, because any producer who felt aggrieved by this procedure would be free to establish his case for a higher initial rate; that is, he could either (1) put on a complete rate case at the time of his certificate hearing, or (2) accept the certificate at the prevailing *threshold* rate and promptly file for an increase, which he would justify in the customary manner, meeting the standards of justness and reasonableness of the act, and enjoying the constitutional protection against confiscation. In other words, new high prices, whether found in existing contracts or in new contracts, would be subject to regulatory scrutiny before becoming effective. Prices within the prevailing level would become effective without any need for administrative delay or processing.

This discussion of the most crucial problem in producer regulation will serve, perhaps, to show where the real kernel of the producers' pricing problem now lies. Once it is exposed it can be examined and analyzed and finally solved. It would be a shame indeed if we were to permit the problem to grow like a malignancy without attempting to isolate it and control it simply because no one had yet solved the riddle of why it was malignant in the first place.

Washington and the Utilities



The Memphis Decision

REGARDLESS of the fact that not all segments of the natural gas industry have reason to be jubilant over the U. S. Supreme Court's decision in the so-called Memphis case, there is one aspect of Justice Harlan's opinion which should be greeted with enthusiasm by producers, pipeline companies, and distributors alike, and indeed by the American business community in general. And that concerns the enunciation of a philosophy of regulation, apparently now shared by a majority of the high court, that the primary purpose of regulation is to balance different interests, rather than to favor one interest at the expense of another. (For an analysis of the decision, see *post,* page 59; for financial outlook, see *post,* page 49.)

In the past, the view that the Natural Gas Act was passed by Congress with the sole purpose of protecting the consumer from excessive rates has more often than not been the guiding principle behind the decisions of the Supreme Court involving regulated utilities. That view was clearly restated in the dissent in the Memphis case, written by Justice Douglas. Said Douglas:

> The construction [of the Natural Gas Act] adopted by the court has dire consequences. It makes a shambles of the act so far as consumer interests are concerned; and they are the ones the act was designed to protect. The ruling sacrifices these interests in the cause of those who exploit this field.

THE opinion of Justice Harlan, however, makes a significant departure from the Douglas viewpoint.

Wrote Harlan:

> It seems plain that Congress, in so drafting the statute, was not only expressing its conviction that the public interest requires the protection of consumers from excessive prices for natural gas, but was also manifesting its concern for the legitimate interests of natural gas companies in whose financial stability the gas-consuming public has a vital stake. Business reality demands that natural gas companies should not be precluded by law from increasing the prices of their product whenever that is the economically necessary means of keeping the intake and

> outgo of their revenues in proper balance; otherwise procurement of the vast sums necessary for the maintenance and expansion of their systems through equity and debt financing would become most difficult, if not impossible. This concern was surely a proper one for Congress to take into account in framing its regulatory scheme for the natural gas industry . . .

WHETHER the Harlan opinion heralds a new trend, so far as the high court is concerned, in the approach to utility regulation, is a judgment that will have to wait for the court's disposition of future cases involving a similar issue. But it ought to be significant that the more recently appointed Justices—Brennan, Whittaker, and Stewart — together with Justice Frankfurter (and presumably Justice Clark, who did not participate in this case), share Harlan's balance-of-interest concept of regulation.

There are other important implications for the gas industry in the Memphis decision. Although it would appear that the status quo has been restored by the court's reversal of the U. S. circuit court of appeals for the District of Columbia, it is plain that the industry will have to adjust to a situation different from that which existed prior to the court of appeals decision. For all the Harlan opinion does is to clarify the meaning of § 4 of the Natural Gas Act, so as to permit pipeline companies with service-type agreements which anticipate future rate increases to apply for such increases under the short-cut procedures of § 4 without obtaining prior approval of their customers to the proposed new rates. Gas distribution companies are certain to look twice from now on before signing such agreements, at least without some protective provisions against frequent rate increases.

A TOUGHER approach on the part of the Federal Power Commission toward rate increases put into effect under § 4 may also be in the making. The Supreme Court's decision relieves the pipeline companies from the financial nightmare of refunding millions of dollars in rates. Likewise, the FPC, which took a calculated risk in continuing to process § 4 rate cases as usual, pending the appeal of the lower court decision to the Supreme Court, has been spared the back-breaking job of reviewing them under the time-consuming procedures of § 5. But none of this assures the pipeline companies of ultimately obtaining all the rate relief they have sought under the § 4 procedure. In view of its position in the Memphis case and on relaxation of regulatory controls over producers, the commission will no doubt bend over backwards to avoid drawing the critical charge, regardless of how unfair, that it is somehow predisposed to grant rate increases.

Speaking of legislation to ease federal controls over producers, the Memphis decision, while it involved an unrelated issue, probably lessens the chance that Congress will pass such legislation at its next session. The prospects of enacting a Harris-O'Hara-type bill next year have not appeared too bright anyway, and there is bound to be a feeling that the Supreme Court's decision has given the industry sufficient relief, at least for the time being. A more likely possibility in Congress is the introduction of legislation to enact into law the lower court's interpretation of § 4 of the act which the Supreme Court reversed.

Pressure in this direction from so-called "consumer interests" is to be expected and might well become serious if, as a result of the Memphis decision, there follows a succession of pipeline rate increases. So far, however, there has been

little reaction one way or another from congressional quarters toward the high court's decision.

Columbia Valley Authority

ALTHOUGH not specifically mentioned by the Democratic Advisory Council in its legislative list, strong support from the liberal bloc for the creation of a TVA-type authority for the Columbia river basin seems certain to be forthcoming during the next session of Congress. Government power advocates, with the assistance of the AFL-CIO, are reported to be optimistic over their chances to enact Senator Neuberger's bill to replace the Bonneville Power Administration with a Columbia Valley Development Corporation. Hearings were held last month in the Pacific Northwest by a Senate Public Works subcommittee on a revised version of S 3114, introduced at the last session by the Oregon Senator.

Prior to the hearings, it was revealed that a letter from U. S. Comptroller General Campbell to Senate Public Works Committee Chairman Chavez (Democrat, New Mexico), written last April in connection with committee consideration of S 3114, had somehow failed to appear in published hearings. Its omission has not yet been satisfactorily explained, in view of the fact that the statements of other federal officials, whose agencies are concerned with the bill, were included in the committee publication. But the inference is that the reason was Campbell's scathing criticism of the Neuberger proposal, which he analyzed point by point in his letter to Chavez.

Campbell told the committee flatly that the proposal to create an authority for the Columbia valley is "not only unnecessary but contrary to public policy." "We generally have opposed," said Campbell, "the creation of new government corporations unless for the most compelling reasons, because corporate entities for the most part are free from the normal safeguards set up by the Congress to maintain adequate control over the conduct of the public business and the expenditure of public funds."

MUCH of Campbell's letter reviewed existing statutory programs for the multiple-purpose development of the Columbia basin, many of which would be eliminated by the Neuberger Bill. It also criticizes the proposed financing arrangements for the new corporation, similar to those proposed for TVA, as meaning that Congress would lose all effective policy control which it now exercises over governmental agencies through the appropriation process.

The revised version of Neuberger's bill, which was debated last month in the Pacific Northwest, does little to remove Campbell's objections. One new feature, certain to be objectionable to the Comptroller General, is the power granted to one general manager, with the original five-man board of directors empowered only to advise and assist him.

From the standpoint of investor-owned utilities, the main shortcoming of the Neuberger plan is a provision which would allow the proposed corporation to acquire by condemnation, "lands, easements, rights of way, franchises, electric transmission lines, substations, and facilities and structures appurtenant thereto." This would seem to include city franchises held by investor-owned utilities.

While the Neuberger Bill is certain to provoke considerable controversy in Congress, the fact is that its chances of approval by Congress are better now than at any time in the past.

Telephone and Telegraph

New England Mobile Telephone Case

THE opponents of Bell system lease-maintenance operation in the mobile radiotelephone field won the first round of an important battle in this area. This was in the form of a decision by the Federal Communications Commission on December 3rd, reversing its earlier approval of private radio station licenses for two Connecticut customers of the Southern New England Telephone Company. These customers had contracted to allow Southern New England to furnish them mobile radiotelephone service on a lease-maintenance basis over their own radio frequencies. The FCC ruling on December 3rd was to the effect that such private contract operation would violate the terms of a 1956 antitrust consent decree agreed to by the Bell system. (See, also, page 62.)

But the most important round in this controversy between nonregulated manufacturers and suppliers of mobile radiotelephone equipment and the Bell system companies is still to be decided. That would take the form of a broader issue, still pending before the FCC, as to whether the American Telephone and Telegraph Company may file tariffs for the rendition of lease-maintenance mobile radio service as a *regulated* utility service. If the commission eventually agrees to permit the Bell system companies to file such tariffs, it would to that extent remove its lease-maintenance operations from the limitations of the 1956 decree, by converting such business into a regulated utility service.

Under the terms of the 1956 decree, which ended the government's suit to dissolve or divorce Western Electric from the Bell system, Bell system companies were prohibited from engaging in anything except "common carrier service." Western Electric was permitted to continue as the manufacturing subsidiary of the Bell system, provided that it confined its manufacturing and servicing operations to the regulated telephone utility industry. The decree was filed in a federal district court in New Jersey.

UNDER this decree, Bell companies were not to enter into any new contracts for lease maintenance of radio mobile service to private customers, although there was a grace period, not to exceed five years, under which existing contracts of this kind could be terminated or adjusted. A year ago (December, 1957) the FCC did grant the two private contract customers of Southern New England their own radio licenses to put into effect such

lease-maintenance operations. One of these was the Connecticut Water Company and the other Wooldridge Bros., Inc.

But two private manufacturing companies in the mobile communications field protested; and the 1957 order was reargued. Although Southern New England was not a party to either case, two defenses were raised in its behalf to defeat the argument that the contracts violated the consent decree. First, it was contended that the American Telephone and Telegraph Company did not own a majority of Southern New England's stock so as to bring the latter into the status of a Bell system subsidiary, bound by the 1956 consent decree. The FCC overruled this contention.

The second contention was that the consent decree did not bar Bell system companies from expanding in the mobile communications field on a lease-maintenance basis. This plea was likewise unsuccessful. The Justice Department argued on the other side that AT&T's lease-maintenance operation in the business of private radio communication might "subsequently curtail or eliminate vigorous and healthy competition in this youthful industry."

THE Justice Department is also opposed to the broader attempt of the Bell system to convert its lease-maintenance operations into a regulated utility business by filing tariffs with the FCC. As stated before, that still remains to be decided. The 1956 consent decree does not, of course, prevent telephone companies from supplying radio mobile service as part of their regular telephone service operations to their own customers. Nor does it apply, in any event, to independent (non-Bell) telephone companies which were not parties to the antitrust proceedings and not bound by the terms under which the government ended its suit against the Bell system.

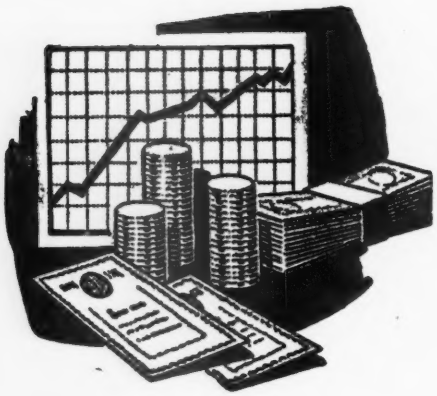
Cutting Back on REA?

A CONTROVERSY is looming in the congressional session this month over Rural Electrification Administration appropriations. This is not so much a conflict between business and government as it is between the administration and the next Congress. The administration is in favor of increasing the interest rate of REA loans from the present low level of 2 per cent. The administration is also in favor of encouraging REA, both telephone and rural electric, borrowers to go elsewhere for their money, if they can borrow from private commercial sources.

The Eisenhower administration is also in favor of cutting down REA spending for loans. It feels that the federal government could better employ the taxpayers' money elsewhere at this particular time. But judging by past performance, what Congress will enact may be quite different.

Budget Director Maurice H. Stans said in New York on December 4th that the President will advocate a number of spending cutbacks.

THE Budget chief also expressed belief that the incoming Congress, which will be under strong Democratic control, will be "a responsible Congress" when it comes to spending. He then indicated that the President would probably make these recommendations in his annual Budget Message to Congress: a cutback in funds for loans to REA co-operatives which Stans said now serve industries, communities, or nonfarm families almost as much as rural homes. Stans urged that the co-operatives be required to borrow from private sources.



Financial News and Comment

By OWEN ELY

"Flow Through" versus "Normalization" of Tax Savings

THE "flow through" method of handling deferred taxes resulting from accelerated depreciation seems to be gaining slowly over the policy of "normalizing" and setting up a reserve for future taxes. The temptation to give the consumer the benefit of the tax "saving" has proved too great for some of the state commissions—Maine and New Hampshire have been followed by Pennsylvania, Missouri, and (presumably) California. Thus some utilities have been pushed into flow through, while others have instead decided to abandon the use of accelerated depreciation. This in turn has raised the question whether a commission can legally force a utility company to use accelerated depreciation, but apparently thus far the commissions have been able to rely only on moral persuasion. (See discussion of the issue in Canada, under "Some Rate Problems of the Bell System," in this department.) In a recent rate case, the superior court of Pennsylvania sustained the commission in holding that management cannot be forced to use accelerated depreciation.

Flow through involves two risks: (1) possible cancellation of the law, which would mean a sudden decline in share earnings and probably a drop in market price of the utility's stock; or (2) the future possibility that during a depression period (when a rate increase would be hard to get) the company would suddenly find that its taxes were increasing as its growth slowed (since fast depreciation on new property would be too small to offset slowing depreciation on older units).

PRESIDENT King of Northern States Power, in a recent talk before the New York Society of Security Analysts, indicated that his company is not using accelerated depreciation because of the probability (in his opinion) that Congress may decide to cancel the provision of the 1954 Tax Code permitting such use. Some other utilities, such as Baltimore Gas & Electric, also seem reluctant to use it, perhaps for

DEPARTMENT INDEX

similar reasons. Possibly the uncertainty over Congress will be cleared up during 1959. Gradually, also, states like New York which have taken no definite position as yet may have to adopt a real policy.

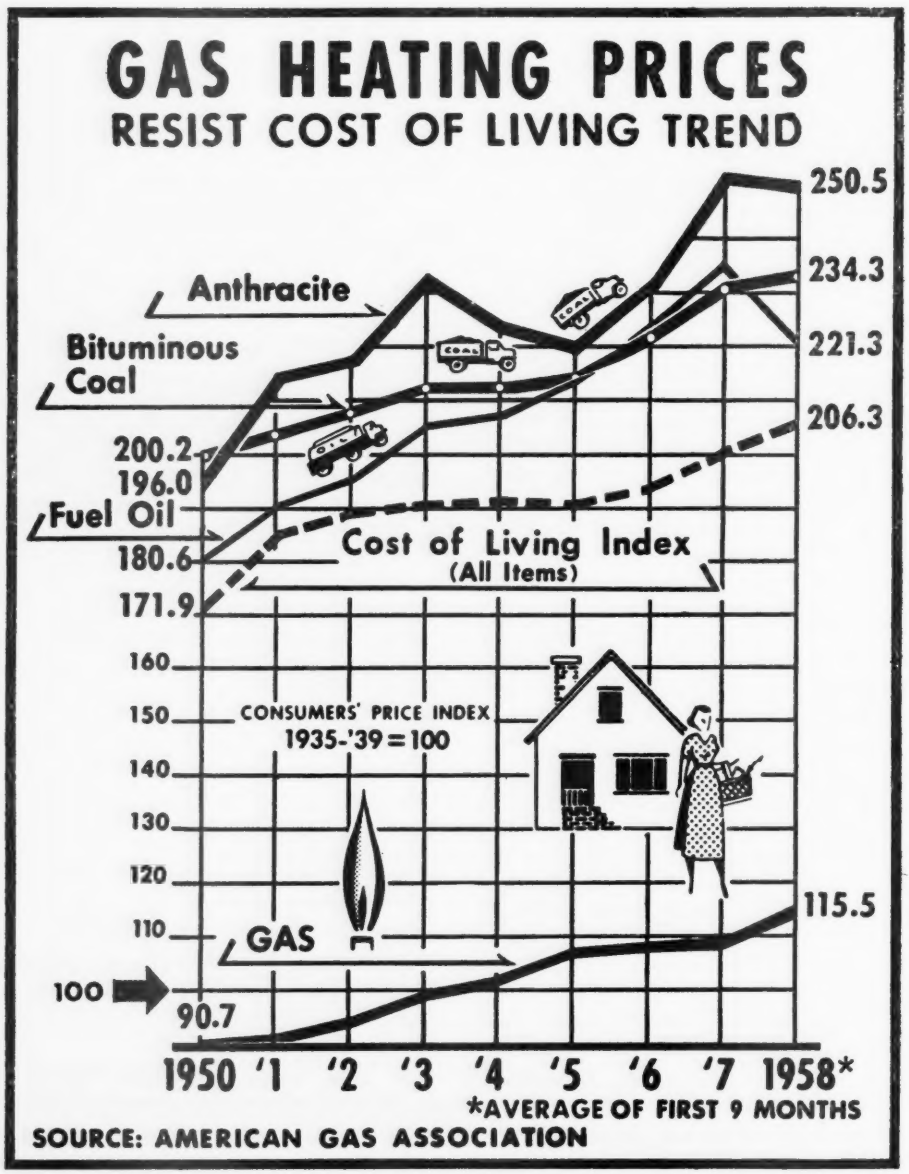
Utilities affected by commission orders or indicated commission preference during the past year or so have had the choice of returning to straight-line tax depreciation or suddenly adopting flow through. In New England there was an early trend toward flow through in Maine, Vermont, and Connecticut. In 1957 Public Service Company of New Hampshire had to follow suit due to a change in policy by the state commission in connection with a rate increase which the commission wished to reduce. (Massachusetts thus far has not insisted on flow through.)

In Pennsylvania the pressure has also been for increasing reported earnings. As a result West Penn Power does not use accelerated depreciation, although other subsidiaries of West Penn Electric do so. On the other hand, Duquesne Light recently adopted flow through and made it retroactive to the beginning of 1954. Largely as a result, share earnings jumped from $2.66 in the twelve months ended June 30, 1958, to $2.84 in the twelve months ended September 30th. The announcement of higher earnings, together with a proposed split in the stock, resulted in a sharp gain in the price of the stock. The company's letter to stockholders, dated October 20th, made the following statement:

> Since 1954 the company has used for income tax purposes the declining method of computing depreciation . . . and has recorded the resulting reduction in tax payments in its expenses as deferred income tax. However, the Pennsylvania Public Utility Commission has held that such deferred income taxes are not allowable for rate-making purposes and its position has been affirmed by the Pennsylvania superior court. Although the commission has issued no order concerning the treatment of such taxes for accounting purposes, it has indicated in a number of rate orders that the tax effect of the declining balance method of computing depreciation for tax purposes should be accorded the same treatment for accounting purposes and for rate purposes. In July the American Institute of Certified Public Accountants issued a revised bulletin on the subject to the effect that where charges for deferred income taxes are not allowed for rate-making purposes, accounting recognition need not be given to such taxes. The company has now received an opinion from its independent auditors to the effect that, in the light of the foregoing, the company should discontinue recording the deferred income taxes referred to in its accounts. This recommendation has been adopted by the company retroactive for the years in which it has used the declining balance method and the resulting adjustments are reflected in the financial statements contained in this report.

In Missouri Laclede Gas and Empire District Electric have decided to end the use of accelerated depreciation but Union Electric (which has asked for a rate increase of nearly $8 million) recently adopted flow through, although it may still have to obtain approval from the Illinois commission, since some of its properties are under the jurisdiction of that commission.

In California there has been similar confusion. The commission has indicated its preference for "flow through" in several



WHILE the overall cost of living and the prices of other major heating fuels have more than doubled from the 1935-39 averages, as measured by the Bureau of Labor Statistics consumer price index, the average cost of utility gas for househeating has advanced less than 16 percent.

rate decisions and has reserved the right to reconsider the increases granted if flow through should not be adopted. Governor-elect "Pat" Brown is not only strongly in favor of giving tax benefits to the consumer, but wants to force the use of accelerated depreciation. In the meantime, the commission has begun an extensive and thoroughgoing study of the whole subject and a considerable volume of testimony, documents, and studies have become available. One lengthy study with 11 charts and tables may be summarized in this department when space is available. However, the commission's findings have not yet been issued.

California Electric Power Company has adopted flow through, the report to stockholders stating, "If the public utilities commission of California should fix new rates based upon the company's proposal to share with its customers the federal income tax benefit resulting from liberalized depreciation . . . the company's annual expense for income taxes would be lowered by the amount of such benefits. The company would also propose to transfer from reserve for deferred taxes to retained earnings the amounts previously deferred aggregating $894,000."

Presumably other utilities in California are awaiting final word from the commission before deciding what policy to follow.

Some Rate Problems of The Bell System

WHILE the Bell system had been generally successful in obtaining rate increases over the past year or so, special problems have been encountered in some areas, especially Louisiana and Canada. In August, 1957, Southern Bell Telephone & Telegraph Company asked for an increase in revenues of some $13 million, of which less than $2 million was found by the public service commission to be "just and reasonable"—but in a final decision rendered October 10, 1958, even this amount was withheld because (according to the commission) the company had rendered inadequate service and curtailed a necessary expansion program.

In order to justify its figures the commission used an artificial rate base, adopting "allocated capitalization" rather than investment in net plant, etc. Earned surplus was in effect disallowed from this capitalization, resulting in a rate base about 9 per cent less than the average net book base submitted by the company. Also, since in the commission's view (which would be hard to justify historically) a telephone company is no more "cyclical" than an electric utility, it held that a high equity ratio is unnecessary. It arbitrarily set up several alternate capital structures averaging about 48 per cent debt, 12 per cent preferred stock, and 40 per cent common stock equity—as compared with the company's actual 25 per cent debt and 75 per cent equity. The commission found that annual cost of debt would approximate 4.05 per cent, preferred stock 4.75 per cent, and common stock about 6.8 per cent. No overall rate of return was found to be fair and reasonable—but the "cost of money" just described, if applied to the theoretical capital structure used by the commission, would work out at only about 5.23 per cent.

ACTUALLY, however, the omission of earned surplus, the disallowance of plant under construction, materials and supplies, and various other adjustments, would probably make the real rate of return somewhere between 4 and 5 per cent. Such a return is obviously quite inadequate. Electric utilities in some states are currently being allowed to earn over 7 per

cent and a number of decisions have been made by state commissions allowing between 6 per cent and 7 per cent as fair value.

However, the commission refused to use as a yardstick the average rate of return on net investment realized by utilities throughout the country, which had been emphasized by Southern Bell. The commission tried hard to find arguments to bolster its findings, penalizing the earnings for "abnormal" advertising and other items, and referring back to an FCC report of nineteen years ago which criticized intercorporate relations in the Bell system.

Obviously, such a decision reflects a very low level of regulation as compared with the standards and policies used by most other states in their dealings with Bell system's subsidiaries. It does not seem too unreasonable to connect it with the general political setup in the state of Louisiana—since politics have been known to play an important rôle in the character of other state regulation from time to time.

IN Canada the Bell system encountered delays and difficulties in obtaining a rate increase needed to support the $2 dividend paid by Bell of Canada for virtually twenty years (after adjusting for the 4-for-1 split in 1948). In 1957 earnings were barely adequate to cover the dividend and this year, judging from the nine months' report, about $1.87 would have been reported without a rate increase. On January 10, 1958, the Board of Transport Commissioners authorized an increase of $10.3 million or about 27 cents a share after taxes. However, the same issue which has plagued the utilities in Maine, Pennsylvania, California, etc.—whether tax savings (deferrals) resulting from vast depreciation should be normalized, or "flow through" to benefit consumers—became an important factor in the case.

NOVEMBER UTILITY FINANCING

PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	Amount (Mill.)	Description	Price To Public	Underwriting Spread	Offering Yield	Aver. Yield For Securities Of Similar Quality	Moody Rating	Success Of Offering
		Bonds						
11/ 6	$30	Natural Gas Pipeline Co. of America 1st (s.f.) 4⅜s 1978	99.25	1.00N	4.68%	4.53%	A	a
11/ 7	25	Columbia Gas System Deb. (s.f.) 4⅜ 1983	101.09	.87C	4.80	4.53	A	b
11/25	30	Northern Nat. Gas S.F. Deb. 4⅜ 1978	100.32	.90N	4.60	4.44	A	a
		Preferred Stock						
10/31	.3	United Cities Gas Conv. 6% Pfd. ..	10.00	.80N	6.00	—		a
							Earns.-Price Ratio	
		Common Stocks—Offered to Stockholders						
11/ 1	20	General Public Utilities (f)	38.50	—	5.51	—	7.69%	a
11/21	7	Kentucky Utilities (g)	33.00	.95N	4.24	—	6.94	—
11/25	5	Tucson Gas, E.L.&P. (h)	49.00	.49N	3.10	—	4.95	—
		Common Stocks—Offered to Public						
10/31	.2	Tidewater Nat. Gas (e)	6.00	N	—	—	—	—

a—Reported the issue was well received. b—Reported issue was fairly well received. e—Sold only to residents of North Carolina. f—One-for-20 basis, not underwritten. Fees to participating dealers allowed. g—One-for-12 basis. h—One-for-10 basis. C—Competitive. N—Negotiated.
Source, Irving Trust Company

About May 1st the Canadian Cabinet deferred the increase authorized by the commission to May 30th and indicated its view that the $12 million deferred taxes should be included in net income. On June 25th the company applied to the Transport Commissioners for an increase of about $16 million, the additional amount reflecting wage increases granted in May and June. Also, in order to settle the issue over tax deferrals, the company decided to give up accelerated depreciation.

As in the United States, those opposing the rate increase then contended that the company should be forced to use fast depreciation for tax purposes, but fortunately the board held that tax policy "is basically a function of management." Accordingly, the commission approved the rate increase effective November 1st, noting that the amount as measured against 1959 revenues would increase to over $17 million. The Cabinet ordered the increase deferred for a month, pending study of the appeals against it by local governments, but finally allowed the increase.

The board found that the proposed increase would result in 1959 net income of $2.32 per share. It took note of the fact that possible increased wage rates were included in expense estimates by the company, although such expense had been disallowed in the past. No adjustment was made by the board, since the increase in this item in 1959 would amount to less than the per share difference between the net income under the proposed rates and "the permissive level of $2.43 per share authorized in the board's last judgment."

Financial Benefits of Memphis Gas Decision

THE Supreme Court's decision, reversing the ruling of the lower court in the Memphis case, legalizes earlier (and continuing) collection of rate increases under bond, pending final decisions by the FPC. A large proportion of the 32 or more pipeline systems have been collecting increased rates under bond, although in some cases collections from customers were partially offset by increased payments to producers, also collected under bond. Some of the companies most affected were the following: Colorado Interstate Gas, over $88 million; El Paso Natural Gas, about $80 million; Panhandle Eastern Pipe Line, over $30 million; Tennessee Gas Transmission, about $30 million; and United Gas Corporation, over $39 million.

Since these companies had not retained the full amounts collected under bond in the form of cash reserves, refunds to customers might have involved obtaining bank loans or selling securities. In fact the FPC had been apprehensive that some pipelines might be threatened with bankruptcy. Moreover, four pipelines had delayed plans for $222 million construction because of fears that the lower court decision might be upheld.

DURING the interval when the case was before the Supreme Court, a few of the pipelines had begun a "lame duck" procedure of negotiating new contracts with their customers in order to secure necessary rate increases to offset the continuing rise in the field cost of gas. While in a few cases such arrangements were successfully completed, now the utilities will be less concerned about such agreements except for major new projects.

While most segments of the gas industry have naturally been pleased over the decision,[1] it should not be overlooked that the regulation of interstate rates by the

[1] Wall Street also celebrated; on the day of the decision Colorado Interstate advanced about 10 points, El Paso and Panhandle 4, Tennessee Gas 3, etc.

FPC remains almost hopelessly bogged down—due not merely to the Memphis situation, but to the extra burden of attempting to regulate independent gas producers and process an abnormal burden of rate cases with an inadequate staff.

ATTENTION will now be concentrated on the Federal Power Commission's program and policies. Unless the commission allows a more liberal rate of return —6¼ per cent or 6½ per cent instead of the traditional 6 per cent—it will be difficult for some of the pipelines to maintain adequate earning power to finance new growth and maintain adequate equity ratios. As the result of both increased money rates and unfavorable regulatory problems, some natural gas companies in the past year or so have had to finance at abnormally high cost. For example, Texas Eastern Transmission had to pay 6 per cent for first preferred stock money last June (it realized 97 on the sale of 5.8 per cent preferred), and the cost of a convertible issue was 5½ per cent. Texas Eastern Transmission had to pay 5.7 per cent in September for mortgage money and Tennessee Gas Transmission about 5.4 per cent, even though the issues were made nonrefundable for five years. Obviously a 6 per cent overall return would not leave much for common stockholders when senior money costs run this high.

RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

Annual Rev. (Mill.)			*12/10/58 Price About*	*Dividend Rate*	*Approx. Yield*	*Recent Share Earnings*	*% Increase*	*Aver. Incr. In Sh. Earns. 1952-57*	*Price-Earns. Ratio*	*Div. Payout*	*Approx. Common Stock Equity*
		Pipelines and Integrated Systems									
$ 5	O	Ala.-Tenn. Nat. Gas	24	$1.20	5.0%	$1.62Se	10%	13%	14.8	75%	41%
192	S	American Nat. Gas	66	2.60	3.6	4.21Se	14	12	15.7	62	33
58	A	Arkansas Louisiana Gas .	50	1.20	2.4	1.85De	19	47	27.0	65	52
57	O	Colo. Interstate Gas	57	1.25	2.2	1.99Se	NC	—	28.6	63	23
376	S	Columbia Gas System ...	21	1.00	4.8	1.53Se	27	12	13.7	65	44
7	O	Commonwealth Gas	9	—	—	.40De	D26	—	22.5	—	77
17	O	Commonwealth N. G.	49	1.80	3.7	3.26Se	13	—	15.0	55	43
11	S	Consol. Gas Util.	20	.90	4.5	1.67Jy	D3	6	12.0	54	60
280	S	Consol. Nat. Gas	49	2.00	4.1	3.17Se	D7	12	15.5	63	57
18	O	E. Tenn. Nat. Gas	11	.60	5.5	.83Se	D2	—	13.3	72	20
301	S	El Paso Nat. Gas	37	1.30	3.5	2.39De	13	12	15.5	54	20
46	S	Equitable Gas	37	1.60	4.3	2.21Se	1	4	16.7	72	42
34	O	Houston N. G.	27	.80	3.0	1.70Jy	21	11	15.9	47	18
20	O	Kansas-Nebr. Nat. Gas ..	38	1.80(f)	4.7	2.49Se	D5	12	15.3	72	32
109	S	Lone Star Gas	43	1.80	4.2	2.28Se	D4	10	18.9	79	43
75	S	Miss. River Fuel	38	1.60	4.2	2.00De	D14	2	19.0	80	49
26	S	Montana Dakota Util. ...	31	1.00	3.2	1.64Se	11	12	19.0	61	31
25	O	Mountain Fuel Supply ..	26	1.20	4.6	1.53Se	D9	8	17.0	78	62
86	S	National Fuel Gas	24	1.10	4.6	1.43Se	6	—	16.8	77	58
129	S	Northern Nat. Gas	31	1.40	4.5	1.68Se	NC	7	18.5	83	34
43	S	Oklahoma Nat. Gas	39	1.50	3.8	2.24Se	34	6	17.4	67	34
117	S	Panhandle East. P. L. ..	60	1.80	3.0	2.74De	—	2	21.5	66	41
13	O	Pennsylvania Gas	20	1.20	6.0	2.18De	D3	4	9.2	55	59
174	S	Peoples G. L. & Coke ...	50	2.00	4.0	3.08Se	7	7	16.2	65	39
101	S	Southern Nat. Gas	44	2.00	4.5	1.90Se	D22	4	23.2	105	41
38	O	Southern Union Gas	28	1.12	4.0	1.53De	—	10	18.3	73	31
313	S	Tenn. Gas Trans.	35	1.40	4.0	1.79Oc	18	10	19.5	78	20
175	O	Texas East. Trans.	35	1.40	4.0	2.59Se	14	25	13.5	54	18
96	O	Texas Gas Trans.	32	1.00(b)	3.1	1.98Se	D9	16	16.2	51	27
97	O	Transcont. Gas P. L.	24	1.00(b)	4.2	1.46Se	D4	29	16.4	68	21
300	S	United Gas Corp.	38	1.50	3.9	2.42Se	D2	12	15.7	62	41
		Averages			**4.0%**		3%	9%	17.3	67%	

Annual Rev. (Mill.)		(Continued)	12/10/58 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1952-57	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
		Retail Distributors									
32	S	Alabama Gas	33	$1.60	4.8%	$2.56Se	17%	18%	12.9	63%	42%
52	O	Atlanta Gas Light	37	1.60	4.3	2.57Se	24	11	14.4	62	38
3	O	Berkshire Gas	20	1.00	5.0	1.22Au	D2	31	16.4	82	39
6	A	Bridgeport Gas	29	1.60	5.5	2.03Se	10	1	14.3	79	50
5	O	Brockton-Taunton Gas	17	.90	5.3	1.18De	D8	43	14.4	76	41
70	S	Brooklyn Union Gas	48	2.20	4.6	3.21Se	19	13	15.0	69	42
4	O	Cascade Nat. Gas	7	—	—	Def.De	—	—	—	—	18
39	O	Central Elec. & Gas	21	1.00	4.8	1.49Se	—	15	14.1	67	18
13	O	Cent. Indiana Gas	15	.80	5.3	1.11Se	—	7	13.5	72	67
6	O	Chattanooga Gas	6	.35	5.8	.50Au	32	17	12.0	70	43
66	O	Gas Service	33	1.52	4.6	2.68Se	66	7	12.3	51	35
8	O	Hartford Gas	42	2.00	4.8	2.29Se	16	—	18.3	88	37
	O	Haverhill Gas	23	1.40	6.1	2.04Oc	12	20	11.3	69	58
18	O	Indiana Gas & Water	24	1.00(b)	4.2	1.54Oc	12	11	15.6	65	47
52	S	Laclede Gas	21	.90	4.3	1.30Se	12	9	16.1	70	33
5	O	Michigan Gas Util.	22	1.05	4.8	1.32Je	1	18	16.7	80	34
6	O	Midsouth Gas	16	.57	3.6	1.00Ap	54	7	16.0	57	41
43	O	Minneapolis Gas	30	1.45	4.8	1.73Se	D16	12	17.3	84	42
15	O	Miss. Valley Gas	24	1.20	5.0	2.31Se	67	14	10.4	52	33
5	O	Mobile Gas Service	24	1.10	4.6	1.77Se	44	—	13.6	62	35
7	O	New Haven Gas	37	1.80	4.8	2.36De	4	—	15.7	76	68
13	O	New Jersey Nat. Gas	39	1.60(h)	4.1	2.62Se	13	—	14.9	61	35
80	O	No. Illinois Gas	24	.88	3.7	1.40Oc	3	—	17.1	63	54
9	O	North Penn Gas	11	.60	5.5	.85Je	D5	8	12.9	71	58
16	O	Northwest Nat. Gas	18	.72	4.0	*.94Se	D17	4	*19.2	77	39
240	S	Pacific Lighting	52	2.40	4.6	2.95Se	45	—	17.6	81	36
10	O	Piedmont Natural Gas	28	1.00	3.6	1.96Se	54	—	14.3	51	25
22	O	Pioneer Nat. Gas	31	1.40	4.5	1.74Je	NC	13	17.8	80	36
2	O	Portland Gas Lt.	15	.50	3.3	1.50Ma	127	—	10.0	33	25
9	A	Providence Gas	11	.56	5.1	.56De	D10	13	19.6	100	50
3	A	Rio Grande Valley Gas	4	.24	6.0	.32Te	24	8	12.5	75	52
6	O	So. Atlantic Gas	15	.80	5.3	1.39Ma	43	5	10.8	58	30
12	S	So. Jersey Gas	42	1.60	3.8	2.28Au	20	24	18.4	70	47
29	S	United Gas Impr.	48	2.20	4.6	3.06Se	25	5	15.7	72	64
51	S	Wash. Gas Light	46	2.24	4.9	3.34Se	35	2	13.8	67	41
11	O	Wash. Nat. Gas	15	(g)	—	.54Se	13	—	—	—	41
8	O	Western Ky. Gas	16	.60(i)	3.8	1.46Se	135	4	11.0	41	38
		Averages			4.8%		24%	10%	14.8	69%	

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER STOCKS

Annual Rev. (Mill.)			12/10/58 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1952-57	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
		Communications									
		Bell System									
$6,313	S	Amer. T. & T. (Cons.)	200	$9.00	4.5%	*$13.53Au	4%	3%	*14.8	67%	64%
303	A	Bell Tel. of Canada	43	2.00	4.7	2.00De	D11	—	21.5	100	66
46	O	Cin. & Sub. Bell Tel.	91	4.50	4.9	4.93De	D12	1	18.5	91	100
232	A	Mountain Sts. T. & T.	136	6.60	4.9	9.14Au	D2	3	14.9	72	73
324	A	New England T. & T.	157	8.00	5.1	8.54Se	3	2	18.4	94	55
864	S	Pacific T. & T.	140	7.00	5.0	8.08Au	D12	1	17.3	87	59
108	O	So. New Eng. Tel.	41	2.00	4.9	1.90De	D13	—	21.6	105	64
		Averages			4.9%		D6%	1%	18.1	87%	

Annual Rev. (Mill.)		(Continued)	12/10/58 Price About	Dividend Rate	Approx. Yield	Recent Share Earnings	% Increase	Aver. Incr. In Sh. Earns. 1952-57	Price-Earns. Ratio	Div. Payout	Approx. Common Stock Equity
		Independents									
5	O	Anglo-Canadian Tel.	38	$1.20	3.2%	$3.11Se	D4%	56%	12.2	39%	55%
41	O	British Col. Tel.	42	2.00	4.7	1.90Se	D27	5	22.1	105	31
4	O	Calif. Inter. Tel.	14	.70	5.0	.83Se	D24	—	16.9	84	24
18	O	Calif. Water & Tel.	25	1.20	4.8	1.54Je	1	—	16.2	78	48
18	O	Central Telephone	25	1.00(b)	4.0	1.79Se	D6	10	13.4	56	28
5	O	Commonwealth Tel.	19	.90	4.7	1.24Je	D16	—	15.3	73	37
4	O	Florida Telephone	26	.90	3.5	1.00My	D10	1	26.0	90	46
289	S	General Telephone	58	2.00	3.4	3.07Oc	D1	32	18.9	65	34
18	O	Hawaiian Telephone	19	1.00	5.3	*1.13Se	D12	7	*16.8	88	43
7	O	Inter-Mountain Tel.	16	.80	5.0	.94De	17	2	17.0	85	63
21	O	Rochester Tel.	22	1.00	4.5	1.21Se	D10	—	18.2	83	33
4	O	Southeastern Tel.	22	.90	4.1	1.11De	D21	—	19.8	81	54
10	O	Southwestern St. Tel. ...	26	1.20	4.6	1.57Je	D6	4	16.6	76	35
34	O	United Utilities	30	1.25	4.2	1.54De	D6	1	19.5	81	40
15	O	West Coast Tel.	22	1.00	4.5	1.18Se	D22	4	18.6	85	35
260	S	Western Union Tel.	32	1.20	3.8	2.03De	D8	—	15.8	59	85
		Averages			4.3%		D10%	7%	17.8	77%	
		Transit Companies									
21	O	Baltimore Transit	6	—	—	$1.01De	124%	—	5.9	—	41
12	O	Cincinnati Transit	6	$ .30	5.0%	.52De	9	—	11.5	58%	49
65	S	Fifth Ave. Coach	19	—	—	2.46De	D29	—	7.7	102	68
308	S	Greyhound Corp.	18	1.00	5.6	1.22De	D4	—	14.7	82	45
25	S	Nat. City Lines	31	2.00	6.5	2.74De	12	9%	11.3	73	94
13	O	Niagara Frontier Trans. .	9	.60	6.7	.77De	35	—	11.7	78	78
65	O	Phila. Trans.	8	.60	7.5	1.23De	D25	—	6.5	49	38
17	A	Pittsburgh Rys.	11¼	.25	2.2	Deficit	—	—	—	—	90
6	O	Rochester Transit	5	.40	8.0	.64De	D6	29	7.8	63	100
22	O	St. Louis P. S.	10	1.00	10.0	.57De	D17	19	17.5	175	94
15	S	Twin City R. T.	12	1.20	10.0	1.01De	D16	—	11.9	119	53
21	O	United Transit	5	.60	12.0	.87Ma	D1	11	5.7	69	51
		Averages			7.2%		7%	—	10.2	87%	
		Water Companies									
		Holding Companies									
43	S	American Water Works .	14	$ .60	4.3%	$ .96Se	D2%	5%	14.6	63%	17%
		Operating Companies									
5	O	Bridgeport Hydraulic ...	33	$1.70(f)	5.2%	$2.05De	D2%	5%	16.1	83%	53%
15	O	Calif. Water Service	47	2.40	5.1	3.19Oc	D8	6	14.7	75	33
4	O	Elizabethtown Water ...	46	2.00	4.3	3.90De	19	30	11.8	51	58
11	S	Hackensack Water	45	2.00	4.4	3.18De	11	6	14.2	63	38
8	O	Indianapolis Water	23	1.00	4.3	1.26De	D11	—	18.3	79	35
6	O	Jamaica Water	38	2.00	5.3	2.86Se	D1	—	13.3	70	26
5	O	New Haven Water	65	3.40	5.2	2.30De	D20	—	28.3	148	61
2	O	Ohio Water Serv.	28	1.50(b)	5.4	1.63Se	D38	10	17.2	92	32
8	O	Phila. & Sub. Water	42	.50(b)	1.2	2.84Se	D15	7	14.8	18	28
2	O	Plainfield Union Water .	62	3.00	4.8	4.42De	D12	2	14.0	68	63
4	O	San Jose Water	50	2.80(f)	5.6	3.38Se	D11	9	14.8	83	42
10	O	Scranton-Springbrook ...	21	1.00	4.8	1.57Se	6	7	13.4	64	29
5	O	South. Calif. Water	18	.80	4.4	1.10Se	D11	12	16.4	73	31
4	O	W. Va. Water Service ..	21	.68(d)	3.2	1.55Se	D17	9	13.5	44	17
		Averages			4.5%		D8%	7%	15.8	72%	

A—American Stock Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; Oc—October; N—November; De—December. NC—Not comparable. NA—Not available. D—Decrease. *On average shares. (a)—Adjusted to eliminate 13 cents per share of nonrecurring tax savings. (b)—Also stock dividend in 1958. (d)—Also 1 per cent stock dividend quarterly. (e)—Also 10 per cent stock dividend May 19, 1958. (f)—Includes extras. (g)—Four per cent stock dividend June 6, 1958. (h)—Also 2 per cent stock dividend December 1, 1958. (i)—Also 5 per cent stock dividend December 29, 1958.

What Others Think

More Power Essential to Future Progress

"If our material progress is to continue, it appears that we will have to have ever-increasing amounts of power, for if we ever run out of power, progress will come to a grinding stop." This warning comes from FPC Commissioner Frederick Stueck, who lectured last month before Civil Affairs Military Government Units of the United States Army Reserve in New York city.

Stueck said that if the increase in available power should ever come to an end, we might have to content ourselves with a static condition of human progress. It is therefore of vital importance to look at how we are using our national resources at present and to estimate the margins that remain for the future.

Some 28 million kilowatts of the prime power source, hydro power, has now been developed in this country, with latest surveys indicating another 30 million kilowatts under construction or authorized, and an additional 60 million kilowatts as technically feasible of development. Some of the power in the latter category, of course, might not be economically feasible under conditions of the near future. Said Stueck:

> . . . Although the development of hydroelectric power sources has been rapid, it has not been fast enough to keep up with the growth of the entire electric utility industry. The future development of hydroelectric power will be progressively more difficult, because there are only a limited number of sites and it is natural to select first the ones that can be most easily and cheaply developed, always leaving the less attractive sites for the future.
>
> Presumably, all of the sites technically and economically feasible of exploitation will be developed eventually but this is not likely to occur in our time. Even if all of them were operating, the total would be a little less than that required to take care of our present power needs. Hydro, therefore, will not be anywhere near sufficient to provide for our greatly increased future power needs.

The remainder of our present power requirements are now being met by steam and internal combustion plants operating on the various types of fossil fuels, Stueck continued. The use of natural gas for power development is a relatively recent phenomenon, although at present some 23 per cent of thermal power is being produced from natural gas. "The trend in gas use is upward due to the rapid development of pipelines," Stueck explained, "but the demands for this fuel for other purposes are so insist-

ent and it has so many points of superiority for specialized uses that the proportion available for the production of power is more likely to decrease than to increase in the future."

As in the case of natural gas, oil has come into extensive use for the production of power in recent years, but Stueck pointed out that there are so many competing demands for this fuel, particularly for house heating, internal combustion engines, and special purposes that its use for burning under boilers may never greatly exceed present-day demands. "In fact, the many uses for which oil is especially adapted and the limited extent of known reserves of it, combined with the increasing difficulty of discovering new productive wells, make it possible that oil will not be an important factor in the production of electric power after the next forty years," Stueck said.

All this means that power for future progress will have to come from solid fuels, or from some new source, Stueck continued. In the past, principal reliance was placed on anthracite coal, but due to exhaustion of many of the better anthracite mines, its place has been taken largely by bituminous coal. However, bituminous coal mines already show increasing difficulty of extraction and present prices have been maintained only by technological advances in mining procedure, Stueck noted.

In view of these developments, Stueck thinks that perhaps a much larger proportion of our future power production will have to come from lignite and the lower-grade coals. Such fuels already find extensive use in Europe and are being used successfully in a few plants in this country, he said.

Limitations on hydro and fuel resources make it necessary for research workers to look for new power sources and to give especially close attention to the production of power from nuclear sources. Stueck noted that experts in the Atomic Energy Commission have revealed that some 80 types of power reactors are theoretically possible. A number of these are under intensive study at the present time, while several experimental reactors have been built for the production of limited amounts of power. The reactor at Shippingport, Pennsylvania, has a capability somewhere between 60,000 and 100,000 kilowatts. Many others totaling close to 1.5 million kilowatts are either under construction or expected to be started in the near future.

While the costs of producing such power are still quite high, Stueck pointed out that a recent study of the National Planning Association indicates that nuclear costs will be down to about 12 mills in 1965. In comparison, cost of power from conventional thermal plants averages about 7.5 mills per kilowatt-hour, of which three mills is for fuel.

"Practical experience in building and operating reactors undoubtedly will bring about the same sort of gradual reduction in costs that has been experienced in the development of other types of complicated machine facilities, but atomic power plants will not begin to furnish a substantial part of the nation's total power supply until they are able to produce energy at costs that are generally competitive with steam-electric power costs," Stueck said.

Although present trends indicate a doubling of the nation's power requirements every ten years, said Stueck, it appears unlikely that this rate will continue indefinitely. He said the Federal Power Commission staff recently prepared an estimate of one billion kilowatts as the

total United States requirements in the year 2000. That is nearly seven times our present capacity. Regardless of whether these figures may be too high or too low, and even if they are reduced sharply, the total that remain are still astounding, the FPC commissioner said. He concluded:

> If these speculations on the power needed to implement our progress and on the way that power may be provided seem somewhat fanciful and far-fetched, let us remember that they are not more fantastic than the things which we are doing today would have seemed to people only fifty years ago.

Certainly, Stueck said, the atom will supply a large and increasing part of our future power requirements. "It is also possible that wind power will be used extensively by that time and perhaps the power of the sun and the tides will also be harnessed to help drive our machines."

Irish Plant Extracts Power from Milled Peat

(See Frontispiece, page 18)

THE Ferbane generating station is the first of its kind in Ireland. In fact, the only other similar power station in the world is operated by the Soviets in Russia. So reports a bulletin of the Irish Department of External Affairs, which also relates that, based on the annual consumption of 500,000 tons of milled peat, the Ferbane station will produce 240 million units of electricity each year with its three 25,000-kilowatt steam turbo alternator sets.

The peat used is similar to turf mold in appearance. It is scraped off the surface of a number of bogs near the plant. A narrow-gauge railway delivers the peat to the station, in cars holding about five tons each, where it is transported by conveyors either to a stockpile or direct to the bunkers. Because of the high moisture content of peat, ranging from 40 to 60 per cent, it must be dried before burning. Therefore, before it is pulverized, all but 25 per cent of its moisture is removed.

Milled peat is then blown into the combustion chambers of three boilers, each of which can provide 220,000 pounds of steam per hour.

When the station's three sets are on full load, about 80 million gallons of water a day are required to operate the condenser. As it is not possible to obtain such a large quantity of water from the adjoining Silver river, it is necessary to reduce the temperature of the water returning from the condensers by means of two cooling towers. These towers are 266 feet high and have a diameter of 186 feet. Approximately one per cent of the water circulated through the towers is lost through evaporation and this is replaced by water pumped from the Silver river.

The power generated at Ferbane is sent into the national transmission grid after its outdoor transformer station raises the voltage from 10,500 to 110,000 volts.

TWO more milled-peat power stations are planned by Ireland's Electricity Supply Board. Completion of one is scheduled for 1960, the other for 1962 or 1963.

There are now seven turf-burning power stations operating in Ireland which account for at least 30 per cent of the nation's total annual output of electricity.

Sod peat has been used to produce power in Ireland for a number of years! The switch to ***milled peat*** was initiated with the advent of the Ferbane station.

The March of Events

Illinois

Rate Boost Bid Opposed

NINE large industrial companies have sought permission from the Illinois Commerce Commission to intervene as objectors to the $1,130,000 rate increase proposed by the Union Electric Company, which represents a 6.78 per cent increase, it was said.

Pointing out that the increase was the first asked for since 1953, Union Electric President McAfee testified at a hearing that his company was impelled to ask for the increase because higher operating costs could not be offset by efficiency. He said mounting costs have made it impossible to provide a fair return to stockholders and to attract additional capital to finance expansion of facilities.

Others testifying at the hearing declared that present net operating revenues provide a rate of return of 4.34 per cent of the fair value in Illinois. They said the proposed rates would result in a return of 5.02 per cent on fair value.

New Hampshire

Case to Supreme Court

NEW HAMPSHIRE's supreme court has been asked by the state to set aside an order of the public utilities commission which would enable Public Service Company of New Hampshire to make any rate increase the commission might grant retroactive to October 1st.

The company had asked the commission to approve an increase in its electric rates which would produce $664,000 more revenue per year.

The commission issued an order on September 30th making the current rates charged by the company "temporary" rates, an action taken in response to a request by the utility that the commission establish temporary rates pending the commission's final decision.

The state attorney general's office interpreted this action to mean that, if the permanent rate decision should grant the company higher rates, the utility would then be able to make the increased rates retroactive to October 1st. To forestall this, the state has asked the high tribunal to dismiss the order as "illegal" and not in the public interest.

New Jersey

Rate Boost Suspended

A PROPOSED rate increase of $36.4 million sought by the Public Service Electric & Gas Company has been suspended until March 15th by the state public utilities commission. The asked-for rate hike included $21.4 million in electric revenues and $15 million in higher gas rates.

The commission ruled in ordering the suspension that the petition for the increase constituted an amendment to a previous application in which only an increase in gas rates was asked for and therefore was actually a new case. Consequently the PUC suspended the effective date of both increases until a hearing can be held.

Public Service Electric & Gas also has an application before the commission asking for a temporary increase of $10 million in gas revenues. Richard J. Hughes, Joseph P. Dunn, and Arthur J. Sills, state rate counsel, went on record as being unalterably opposed to any increase in gas rates.

New Mexico

Statute Ruled Unconstitutional

THE New Mexico supreme court declared a state statute unconstitutional that provided for reimbursement to utilities of the costs of relocating facilities due to federal-aid highway construction. The court stated that the legislation violated the state Constitution's ban on donation of state funds in aid of private corporations. However, four other states have construed similar statutes to be constitutional: Maine, Minnesota, New Hampshire, and Pennsylvania. Also in Idaho and Texas, lower court decisions have upheld the constitutionality of such legislation.

In the New Mexico case it was stated that it is not enough that such a donation of public funds will be used to serve a public purpose. The court insisted that "If this were the criterion by which the validity of an appropriation of public funds would be measured, there would hardly be any limit upon the right of state, county, city, or school districts to appropriate money to a private corporation." A rehearing was sought on the case in the New Mexico supreme court.

Ohio

Rate Boost Needed

IN order to slow down a decline in earnings, the Columbus & Southern Ohio Electric Company has applied to the state public utilities commission for a rate increase in the city of Columbus and the unincorporated areas of Franklin county.

The amount needed to offset in part the very substantial increase in cost of labor, coal, and taxes is a gross revenue of $3.4 million, which will give the company a net income after taxes of $1.6 million.

Although a provision of the charter of the city of Columbus requires that any change in public utility rates be submitted to the vote of the electors of the city and must be approved by a majority of those voting, this procedure would require many months of delay, the company stated. And since the unincorporated areas *did require approval* by the public utilities commission, it felt that both rate increases could

be obtained simultaneously within a reasonable length of time by action of the commission.

On a residential 250 kilowatt-hour bill, the new rates would cost the customer 95 cents more. Minimum bill for 20 kilowatt-hours would be $1.50 under new rates instead of $1. New rates would actually cost users of 400 kilowatt-hours a month $3 less.

Pennsylvania

Rate Rise of 10 Per Cent Asked

MANUFACTURERS LIGHT & HEAT COMPANY of Pittsburgh has asked the public utility commission for a $6.4 million annual rate increase, which represents a 10.5 per cent raise.

The company was allowed a $1,490,000 increase in September of 1957 and an additional boost of $3,071,092 in February of 1958.

The new increase sought by Manufacturers would add roughly $1.91 to the average residential heating customer and 81 cents to that of the average nonheating resident. The company wants to put the new increase into effect on January 14, 1959. However, it is likely that the PUC will postpone this action pending a detailed study and public hearing.

The city of Pittsburgh law department will review the latest request of the utility for an increase.

Rate Boost Requested

THE Peoples Natural Gas Company has petitioned the Pennsylvania Public Utility Commission to grant it a $2.8 million annual rate increase. This 5 per cent rate increase request followed by two weeks the request filed by Manufacturers Light & Heat Company for an annual increase of $6.4 million.

Utah

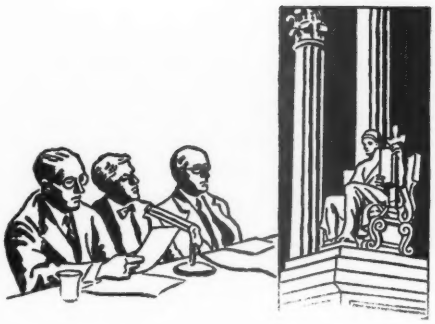
FPC Ad Proposal Resisted

UTAH'S public service commission has declared its opposition to a Federal Power Commission proposal under which "institutional" advertising by private power companies would be limited. Investor-owned power companies have been using institutional ads in which they criticized the expansion of public power projects, claiming that such federally financed endeavors have a tax advantage over private business.

Private utilities have been charging advertising costs as part of their operating expenses and this practice is now questioned by the FPC. Utah Commission Chairman Hal S. Bennett said that if the federal agency prevents power companies from including advertising costs in their operating expenses it would "curtail the right of free speech." In a letter to the FPC, the commission's position was outlined, part of which said:

> It is unfair for a regulatory commission to deprive investor-owned utilities of the privilege of bringing facts concerning public power competition to their customers while their competitors (tax-supported utilities) are free to carry on advertising and other similar programs unrestricted.

The Utah commission, the letter added, had considered the problem and "has determined that Utah Power & Light Company is not only entitled to but should meet competition of publicity, promotion, and advertising on the part of proponents of government power."



Progress of Regulation

Trends and Topics

Expense Allowance for Acquisition Adjustment

THE question has arisen in some cases whether an amount paid for public utility plant in excess of the cost to the original owner, treated as an acquisition adjustment, should be amortized as an operating expense. The Alabama commission recently allowed such an item as an operating revenue deduction consistent with its past policy (25 PUR3d 257).

The Kansas commission, however, did not permit a gas company to charge to operating revenues the amount of amortized acquisition cost adjustment arising from the purchase of properties of another company. The commission required the adjustment to be amortized over a period of thirty years as an expense to be borne by stockholders (25 PUR3d 381).

(The relationship between plant acquisition adjustments and the rate base is discussed in the FORTNIGHTLY, October 25, 1956, page 721.)

Objection to Allowance

The background for the controversy is explained by a Pennsylvania court, which referred to the fact that both the Federal Power Commission and the state commission had adopted similar requirements as to accounting for the difference between original cost and acquisition cost. But the Federal Power Commission had directed that plant acquisition adjustments be written off as a disposition of income, while the Pennsylvania commission had directed amortization as "operation expense." Then the state commission allowed this expense for rate making.

The court reversed the commission, holding that payments in excess of the original cost of utility property could not be charged to operating expense in a rate proceeding since the excess amount represented strategic or preemptive value in anticipation of increased earning power and, if not realized, should be charged to the stockholders (7 PUR3d 609). A dissenting judge said that elementary principles of equity and justice require allowance of amortization of depreciable investment when acquisition has been approved by the commission and transfers result in benefits to customers.

The public, according to the Missouri commission, should not be required

to bear the expense of amortization of the difference between the purchase price of property and its original cost, where the purchase price exceeded its valuation determined on the basis of reproduction cost depreciated and the only way the purchaser could expect to earn a fair return upon its investment would be for the commission to allow a return based upon an amount substantially in excess of original cost and reproduction cost depreciated (54 PUR NS 105).

The New Mexico commission was of the opinion that acquisition cost adjustments, if subject to amortization, should not be considered as an operating revenue deduction (12 PUR3d 268).

The New York commission took the position that a charge representing amortization of the amount in excess of the price which a gas company was permitted to place on its books for property purchased should not be charged to operation (45 PUR NS 374).

According to the Louisiana commission, the amortization of an electric company's plant acquisition adjustments through charges to operating revenue should not be commenced when the predecessor company's original cost and reclassification study has not been made and the existing company, resulting from mergers, has not reached a stage of integrated operation sufficiently advanced to permit both amortization of integration costs and satisfactory rate reductions (69 PUR NS 10).

The Kentucky commission did not allow Southern Bell Telephone & Telegraph Company to amortize plant acquisition adjustment, being the excess of purchase price over original cost of plant acquired by the company, on the ground that it was a nonrecurring item (88 PUR NS 1). The same commission, however, allowed as an operating expense an amount by which Kentucky Telephone Corporation's plant acquisition adjustment was being amortized on an annual basis where the plant acquisition adjustment was included in the company's net investment rate base (91 PUR NS 507).

Approval of Allowances

The Arkansas commission approved an allowance for amortization of the unamortized portion of gas plant acquisition adjustment when such balance was allowable in the rate base. It appeared that this item represented the difference between the price paid by a natural gas company in arm's-length transactions and the original cost of the property to the party first devoting it to public service, which amount had not been recouped from excess earnings from utility operations (10 PUR3d 407). The rate order was reversed on other grounds (18 PUR3d 13).

In another case the Arkansas commission approved such amortization but ordered an electric company to defer further amortization until studies had been made to the end that equitable allocation of this expense could be made to all classes of customers (13 PUR3d 1). The commission referred to the Pennsylvania court decision mentioned above (7 PUR3d 609) and expressed the opinion that the dissenting opinion set forth the basis for a sounder regulatory practice.

The Virginia supreme court affirmed an order of the commission (9 PUR3d 225) authorizing an increase in rates where the commission had allowed as an operating expense the amortization of plant acquisition adjustments. The investment was said to have been made prudently as a result of arm's-length bargaining. The court said this was in accord with the rule adopted by other utility regulatory commissions (8 PUR3d 120).

Amortization has been allowed in California (6 PUR3d 161, affirmed in 10 PUR3d 345), Georgia (8 PUR3d 487), Michigan (88 PUR NS 15), Utah (95 PUR NS 390), and Wisconsin (85 PUR NS 401).

Review of Current Cases

Service Agreement Does Not Bar Filing of Rate Changes Under Natural Gas Act

A NATURAL gas company may file rate changes under § 4 of the Natural Gas Act when it supplies gas under a service agreement providing for payment under the seller's rate schedule, "or any effective superseding rate schedules on file with the Federal Power Commission." This is distinguishable from the filing of a change in a specific rate established by contract for a stated period of time. The Supreme Court made this ruling in reversing a court of appeals decision in Memphis Light, Gas & Water Division *v.* Federal Power Commission (1957) 21 PUR3d 209, 250 F2d 402, which had overturned the Federal Power Commission decision in Re United Gas Pipe Line Co. (1956) 15 PUR3d 279.

Decisions by FPC and Lower Court

United Gas Pipe Line Company supplies service to other companies under a number of long-term service agreements made and filed with the commission. Each of these contains the condition that all gas delivered under the contract shall be paid for by buyer under the seller's rate schedule or any effective superseding rate schedules on file with the Federal Power Commission. It is further provided that the agreement shall be subject to applicable provisions of such rate schedules and the general terms and conditions thereto and filed with the commission which are, by reference, made a part of the agreement.

United, proceeding under § 4(d) of the Natural Gas Act, filed with the commission new rate schedules, together with supporting data, increasing its prices for gas. The commission ordered a hearing as to the propriety of the new rates and, except as to industrial service, suspended their effectiveness. The commission then took evidence under § 4(e) and refused to reject the filings.

The Supreme Court, in United Gas Pipe Line Co. *v.* Mobile Gas Service Corp. (1956) 350 US 332, 12 PUR3d 112, had ruled that United could not escape a contract obligation to furnish Mobile with gas at a single specified price for a term of years by unilaterally filing an increased rate schedule under § 4(d). The commission distinguished the Mobile decision on the ground that the contract there involved specified a single fixed rate which United was contractually foreclosed from

changing without the agreement of the purchaser.

The court of appeals, in reversing the commission, regarded Mobile as establishing that § 4 applies only to rate changes whose specific amount has been mutually agreed upon between a seller and purchaser and that where a purchaser has not so agreed, a rate change can be effected only by action of the commission under § 5 of the Natural Gas Act. The court held that the commission had no jurisdiction to proceed under § 4.

Supreme Court Distinguishes Mobile Decision

The contract before the court in the Mobile case, it was pointed out by the Supreme Court, required United to furnish gas to Mobile at a single fixed price of 10.7 cents per Mcf for a period of ten years. The contract contained no provision for any different rate, or for changing the agreed rate during the term of the agreement. The court ruled in that case that the Natural Gas Act gave the company no right to abrogate this unqualified contract obligation and increase its price of gas by filing new rate schedules under § 4(d) subject to commission approval. United had contractually bound itself to furnish gas throughout the contract term at a particular price.

The present service agreement, however, was "vitally different from that in Mobile." The contract bound United to furnish gas to these customers during the life of the agreement "not at a single fixed rate, as in Mobile, but at what in effect amounted to its" current going rate. Contractually, this left United free to change its rates from time to time subject to the procedures and limitations of the Natural Gas Act.

The record showed that United, in the filings at issue, had complied with all the duties which § 4 imposed upon it, and there was nothing in this section which implied that § 4(d) and (e) procedures were applicable to the filing and review of only those rate changes whose amount had been agreed upon by the seller and buyer. The court could perceive no tenable basis of distinction between the filing of a rate in the absence of contract and a similar filing under an agreement which explicitly permits it.

Public Interest in Regulation

It seemed plain that Congress, in drafting the Natural Gas Act, was not only expressing its conviction that the public interest requires the protection of consumers from excessive prices for natural gas, but was also manifesting its concern for the legitimate interests of natural gas companies in whose financial stability the gas-consuming public has a vital stake. Business reality, the court continued, demands that gas companies should not be precluded by law from increasing prices whenever that is economically necessary. Otherwise, procurement of vast sums necessary for maintenance and expansion of systems through equity and debt financing would become most difficult.

No Further Hearing Required

The commission had found that the service agreements reserved to United the power to make rate changes as noted. The lower court had found it unnecessary to decide that question. The Supreme Court thought it would be both unnecessary and dilatory to remand the case to the court of appeals for consideration of that issue, which involves matters peculiarly within the area of the commission's special competence and as to which the court could hardly be aided "by a further examination of the record by the court of appeals." Neither suggested this course.

The court was satisfied that the commission's determination as to the meaning of the service agreements was amply supported both factually and legally. There was no necessity to embark upon a detailed discussion of the various contentions made by the parties, none of which appeared to have been overlooked or misapprehended by the commission. The Supreme Court held that the court of appeals was in error in concluding that in the circumstances of this case United could not proceed to change its rates by filing under § 4(d) of the statute.

Dissenting Opinion

Justice Douglas, with the concurrence of Chief Justice Warren and Justice Black, expressed the opinion that this decision marked "a retreat" from the holding in the Mobile case. Moreover, taking a different view than the majority of the court, he said that the construction adopted by the court made a shambles of the Natural Gas Act so far as consumer interests are concerned and that "they are the ones the act was designed to protect." He did not recognize the public interest in the financial stability of natural gas companies, mentioned in the majority opinion. ***United Gas Pipe Line Co. et al. v. Memphis Light, Gas & Water Division et al. Nos. 23, 25, 26, December 8, 1958.***

New Telephone Services Authorized

In separate applications to the Nebraska commission, Northwestern Bell Telephone Company obtained permission to establish several new services.

One such service is push-button telephones with three different types of systems. Assembly A provides for nine station numbers with additional station numbers available at an installation charge of $15 for the first additional number. Assembly B is the same as Assembly A but with the addition of privacy, conference arrangements and equipment for both visual and common audible signals. Assembly C is the same as Assembly B but with the addition of busy tone and camp-on arrangements.

In exchanges where extended area service is provided, the company was authorized to offer such service without toll charge, while allowing a subscriber to elect instead to use toll facilities and pay the regular toll charge.

The commission approved a new service offering of a special reverse charge toll service, which is an arrangement providing a special directory listing with a special telephone number in a foreign directory, and which provides for revising the charges for all calls to the special number and billing them as sent paid telephone calls.

Finally, the company was permitted to revise its tariff provisions covering colored hand telephone sets so that when a subscribers using a colored handset in any Bell system exchange moves to a new address in a Northwestern exchange, a colored handset will be placed at the new location without an installation charge. *Re Northwestern Bell Teleph. Co. Application Nos. 21550-21553, October 31, 1958.*

Application of Motor Carrier Law to Pipeline Carriers Is Limited

THE Nebraska supreme court has upheld an order of the commission granting a certificate of public convenience and necessity to a pipeline company to construct, operate, and maintain a pipeline gathering system. Other pipeline companies had protested issuance of the certificate, and a company appealing from the order contended that laws relating to motor carriers had been made applicable to certificates for pipeline common carriers. The statutes relating to motor carriers had been to some extent incorporated into the law regulating pipeline carriers. The court, however, said that where the attempt is made to incorporate parts of a former law into one that is being presently made, the language used should be such as to indicate with a reasonable degree of certainty what was in the legislative mind. A careful and intelligent reading of two acts should be sufficient to indicate to the reader what parts of the old law were applicable to and were incorporated in the new.

The objecting pipeline company took the position that it was a common carrier already in the field and had a prior and necessarily exclusive right to extend its existing pipelines to serve the fields involved. It argued that the new company had not met the requirements as to certificates of public convenience and necessity set out in the provisions of the Motor Carrier Act.

The court, in distinguishing motor carrier regulation and pipeline regulation, said that transportation of petroleum products is clearly a specialized kind of transportation. It does not involve carriage by motor vehicles using the public highways. Problems of motor vehicles as common carriers are not presented. Except in so far as a pipeline may be in or across a public highway, its existence presents no use of a highway problem. It presents no problem of regular or irregular routes or deviation of routes. Its patrons are few and known. Its problems, in so far as they relate to shippers and the public, are relatively simple in comparison with problems presented by motor carriers. *Re Toronto Pipe Line Co., Dallas, Texas, et al. 92 NW2d 554.*

FCC Reverses Radio Station Authorizations in View of Consent Decree

THE Federal Communications Commission on December 3, 1957, granted without hearing applications of the Connecticut Water Company for authorizations in power radio service to cover 3 base transmitters and 12 mobile transmitters. The commission on December 16, 1957, granted, without hearing, applications of Wooldridge Bros., Inc., for authorization in the Citizens Radio Service to cover 15 radio transmitters.

Now, after considering protests, the commission has reversed these authorizations and denied the applications. This action was based upon a conclusion that lease-maintenance arrangements between the Southern New England Telephone Company and the Connecticut Water Company and Wooldridge Bros., Inc., were in violation of a consent decree in United States of America *v.* Western Electric Co., Inc., and American Tele-

phone and Telegraph Co., Civil Action No. 17-49, entered January 24, 1956, in the federal district court for the district of New Jersey.

Question of Subsidiary Relationship

The question of whether lease-maintenance arrangements are violative of the terms of the consent decree, said the commission, is mainly dependent upon a determination of whether Southern is a subsidiary of AT&T within the terms of the consent decree. If Southern is a subsidiary within the meaning of the decree, then certain proscriptions of the decree are applicable to it.

The consent decree enjoins AT&T from engaging, either directly or indirectly through its subsidiaries, other than Western Electric Company and Western's subsidiaries, in any business other than the furnishing of common carrier communications services; provided, however, that this prohibition shall not apply for a period of five years from the date of the final judgment to leasing and maintaining facilities for private communications systems, the charges for which are not subject to public regulation, to persons who are lessees from the defendants or their subsidiaries of such systems, forty-five days after the date of the final judgment.

Portions of the consent decree provide that Bell operating companies shall mean the twenty-two corporations listed in an appendix, any other subsidiaries of the defendants engaged in furnishing common carrier communications services, and the respective subsidiaries and successors to each of the foregoing. Companies of the Bell system, this provision continues, shall mean AT&T, Western, their subsidiaries, and the Bell operating companies. Southern New England Telephone Company is included in the twenty-two corporations listed in the appendix.

The commission considered and discussed at length differing views as to the term "subsidiaries" and to the inclusion of Southern among the twenty-two corporations listed as Bell operating companies. The commission then reached the conclusion that Southern was a "subsidiary" covered by the consent decree.

Southern argued that the term "subsidiaries" was to be read only in its "plain and ordinary meaning" of a company controlled through majority stock ownership. Only 21.46 per cent of Southern's voting stock is owned by the American Telephone and Telegraph Company. This contention was rejected. The commission ruled that Southern was considered as coming within the terms and prohibitions of the decree. It was said to be apparent that arguments centering around the meaning of subsidiary, if accepted, would defeat the obvious intendments of the decree, for there would then exist situations of inapplicability of vital portions of the decree which would be patently contrary to the decree considered in its whole.

Extensions of Existing Systems

The commission also considered the question whether lease-maintenance arrangements with Connecticut were permissible under the section of the decree relating to the 45-day period. Southern stated that the lease-maintenance arrangement with Connecticut was executed in 1955, and that Connecticut's private mobile radio system was originally licensed in that year. It was urged that the authorizations granted by the commission to Connecticut in 1957 were for the addition of facilities which were integrated with the existing system.

The commission said that no extended discussion was necessary with respect to the fact that Connecticut did not acquire rights under the lease-maintenance con-

tract until July 23, 1957, the date when requests were granted to assign or transfer the license for a certain radio station as the result of a merger. Connecticut did not enter into a new lease-maintenance arrangement with Southern, but operated as a successor organization.

The commission, however, did not think any purpose would be served in holding that the consent decree became applicable merely because the successor in interest came into existence at a date more than forty-five days subsequent to the date of the final judgment. But it held that to permit Southern to increase its investment in this particular lease-maintenance activity would violate the decree. Any additional equipment and maintenance needed by a licensee for the enlarged or extended portion of its private communications system may be obtained from sources other than Southern by lease or purchase as appropriate or desired. The commission found no merit in a contention that additions to the radio system were directly integrated with the operation of the existing system. *Re Connecticut Water Co. et al. Docket Nos. 12323, 12324, File Nos. 7713-IW-P/L-M et al. December 4, 1958.*

Time Limit in "Grandfather Clause" Held Mandatory

A KENTUCKY appeals court ruled that a "grandfather clause" authorizing motor carrier certificates as a matter of right upon application before a specified date was mandatory as to such a time limit.

The court affirmed a lower court judgment which set aside a commission order granting a certificate under the grandfather clause upon application filed several months after the statutory date. The commission had taken the view that the statutory language should be liberally construed to preserve the rights of the carriers affected.

The applicant in this case carried on local cartage operations in Louisville and Covington and was considering a merger with a common carrier truck line operating between the two cities. In response to the applicant's question whether, in case of merger, he could carry on local cartage under a common carrier certificate without obtaining local cartage authority, commission officials had given a series of conflicting opinions.

The court rejected a contention that such conflicting opinions gave rise to an estoppel or created equities in the applicant's favor with respect to the late application. On the contrary, said the court, the different views expressed by the commission officials should have put the applicant on notice that the safe thing to do was to file timely application for local cartage authority. *Lambert Transfer & Storage Co., Inc. v. Banner Transfer Co. et al. 315 SW2d 629.*

Railroad Properly Assessed Entire Cost of Crossing Signals

EVIDENCE of substantial traffic at a grade crossing, together with obstruction to view and a history of crossing accidents, was sufficient to justify a commission order requiring a railroad to install electrically operated flashing warning sig-

nals, the Arizona supreme court ruled.

The court also sustained a requirement that the railroad bear the entire cost of the installation, rejecting a contention that an interpretation of a statute which places the entire cost of crossing protection on the railroad, without reference to its reasonableness, makes the statute unconstitutional and a burden on interstate commerce. Whether such costs shall be apportioned or placed solely upon the railroad is purely legislative, the court observed. The fact that buildings which obstructed motorists' view at the crossing were not railroad property was held to be immaterial to the validity of the order. *Southern P. Co. v. Arizona Corporation Commission et al. 329 P2d 883.*

Rate Order Reversed for Defective Findings As to Reproduction Cost, Working Capital, and Return Allowance

THE circuit court of Madison county, Illinois, reversed an order of the Illinois commission (22 PUR3d 358) granting a rate increase of 47½ per cent to the Alton Water Company. It said that on the basic facts accepted, but with inadequate evidence and an arbitrary method, under the law, the reproduction cost figure could not be approved. The court also disagreed with the commission's allowances for working capital and return.

Reproduction Cost

The court pointed out that in Illinois, computations of present fair value must, among other things, include consideration of reproduction cost as well as original cost, each to be given such weight as is right and just in each case. The commission had allowed over a million dollars for general overheads. The court believed that this figure, derived not from dollars even by estimate but from flat percentages, was largely conclusions, unsupported by any detail.

It was, according to the court, mainly composed of nebulous "preliminary, organizations . . . omissions and contingencies" and of legal, engineering, and other items wholly unexplained and quite likely duplicated in a service contract with one of the company's affiliates. It came to 15 per cent of the total reproduction cost new. The court said that acceptable as overheads may be as a matter of law, an unjustified rate base component of such consequence could not be condoned or accepted.

Depreciation Deduction

The court also disagreed with the depreciation deduction. This figure was reached on the appraisal of engineers through inspection and estimates of condition. The court questioned this figure for several reasons. First, 40 per cent of the plant was underground and could not be inspected at all. Second, the water service had been found to be inadequate. Third, it was at gross variance with the result ascertainable by the straight-line method.

The court said that the straight-line depreciation method may not guarantee precision in any one year, but that it is "at least as accurate as inspection of a plant which is 40 per cent underground.

Working Capital

The working capital allowance consisted to a large extent of cash. The court concluded that the cash portion of the allowance was not needed, for there was available at least the amount allowed in

earnings earmarked for taxes but on hand for use as working capital, because, while accrued it would not need to be paid until the following year. The court said that as a practice working capital may be allowed, but is generally not allowed when tax moneys deferred are on hand.

Net Revenue

The commission was held to have committed error in allowing as an operating charge accrued annual federal income taxes actually deferred under § 167 of the Internal Revenue Code, and in failing to consider revenue available by reason of changes from flat to metered rates and through improved meter maintenance. Referring to the deferred income taxes under the accelerated depreciation method, the court said that consumers charged with actual expense should have the benefit of a profitable deferment.

Under a previous order the company should have checked 10 per cent of its meters each year but it had failed to do so in recent years. In the test year it checked substantially more meters and this reduced pumped but unbilled water by over 74 million gallons, thus resulting in a substantial saving. Such a matter, said the court, cannot be ignored.

Return Allowance

The commission had allowed a return of about 5.6 per cent. Evidence indicated that the company had a capital stock investment of about one-fifth, with the remaining four-fifths of plant having been acquired from capital borrowed at rates considerably lower than this rate of return.

The court found that at the proposed and allowed rates, after paying all costs and taxes and the interest on debt and preferred stock dividends there would be available for distribution to stockholders slightly over 17 per cent of capital stock investment.

The company argued, however, that this point was precisely the interest-plus-dividends theory of return condemned by Illinois courts, and that a fair return on fair value is required, regardless of the effect on the amount distributable to stockholders.

The court pointed out that the rates in effect under the commission order are 47½ per cent higher than the company's rates since 1952, and 106.5 per cent higher than those in 1951. It said that if such an increase were needed to meet expenses and to pay a reasonable return, they might be justified, but that when the return on investment is 17.137 per cent such a demand on consumers might be unwarranted. It concluded that the return allowed was unnecessary from the investors' standpoint and unwarranted from the consumers', and, therefore, not just and reasonable as required by statute.

It was noted that the company serves a commodity which people cannot live without and that it has a state-guaranteed monopoly far beyond comparison with that of transportation, communication, and other regulated businesses. Furthermore, said the court, it was operating in a community that is prosperous, growing, and stable. The company has consistently paid dividends and added to surplus. In such a business, investors "cannot expect either high or speculative dividends," said the court, although the dividends should be high enough to induce the investment of capital in the business. A return need not produce three times the national average dividend, as was the case here. In view of these holdings other matters of rates and procedure raised by the record were not decided. *City of Alton et al. v. Illinois Commerce Commission et al. No. 58-L-66, October 24, 1958.*

Property Designed for Peak Demand Included in Rate Base at Full Value although Not Operated at Full Capacity

THE Indiana commission, in granting the Indianapolis Water Company a rate increase, considered the argument that certain units of property should be treated as partially used and useful in fixing a rate base. It was contended that if a unit was not operating at its full capacity, it should not be considered 100 per cent used and useful and that used and usefulness should be determined upon the percentage that a particular unit would be operating as related to its full operating capacity.

The commission said that in considering such an argument it must concern itself with the operating demands placed upon the property of the company involved and whether or not a unit of property in service is actually needed to render reasonable and adequate service to the public. It rejected the argument, pointing out that the company must design and engineer its property in order to meet the peak demands of the public. If such peak demands require a 20-inch main in a particular area and the average demand by that area would require only a 10-inch main, it is quite obvious what the result would be to the public served if the company should only install a 10-inch main.

In this case there was no evidence to indicate that the company had departed from sound engineering practice and overbuilt its utility properties. The commission held that a unit of property cannot be partially used and useful. Therefore, it included the property at its full value despite the fact that it was operating at less than its full capacity.

Public Fire Protection Service

The city of Indianapolis successfully claimed that the charges proposed to be made for public fire protection service were too high. The rates for such service were paid by municipalities on the basis of a charge for each hydrant and for each inch-foot of water mains supplying such service. The commission said that while this system of charging has several desirable features not found in rates based on hydrants alone, it is more complicated and in some instances results in an improper allocation of costs.

Many of the company's mains furnishing fire protection service to the city of Indianapolis and other municipalities extend through Indianapolis and must necessarily be of sufficient size to carry water to the towns. As a result, under the inch-foot method of billing, Indianapolis pays a greater amount than would be the case if it alone were being served.

A public fire protection charge for municipalities based upon hydrants alone, besides being simpler to administer, would eliminate this inequity. The commission concluded, therefore, that the public fire protection charge to be paid by each of the municipalities should be based upon the number of hydrants located within each municipality.

Rate Base Factors

The commission discussed the statutory "yardstick" used in determining whether or not utility rates are just and reasonable. It said that it must first determine the fair value of all the property actually used and useful for the convenience of the public and that it shall provide rates sufficient to pay the utility a fair return upon such fair value. In order to give effect to the will of the legislature the commission examined evidence on the cost of the property, information in possession of the state board of tax commissioners or

any local authorities, and reproduction cost at current prices less depreciation. It also gave weight to the reasonable cost of bringing the property to its present state of efficiency. *Re Indianapolis Water Co. No. 27458, August 22, 1958.*

Right to Service from Main Installed by Construction Company

THE California commission entered an interim order directing a water company to attempt to renegotiate a contract with a construction company concerning service of water through pipes installed by the latter. This was done with a view towards furnishing water to an applicant or any other user who might be in the area.

The applicant for service owned or controlled vacant lots on which he intended to build homes. Water mains in streets in front of some of the lots had been put in by a construction company, and water was going through the mains. The water was furnished by the water company. These mains had been constructed under an agreement that water would be supplied exclusively to the properties developed by the construction company until May of 1959, at which time the mains would be turned over to the water company. The water company was willing to serve under its main extension rule whereby the applicant would pay for all pipe extensions over certain amounts designated in the rule, or it was willing to serve the applicant through these mains, provided it could be relieved of any liability under the existing contract with the construction company. It was the position of the construction company that it paid the expenses of installing these mains and that the applicant did not participate in these expenses.

Conflict between Contract and Utility Law

This matter, said the commission, raised a conflict between the effect of a private contract and basic utility law. However, under basic utility law the utility must serve all who apply. If the utility was serving water through these pipes, then it must serve this applicant or any others who might apply, providing it had sufficient water so to do. There was no question as to the amount of water in this proceeding. On the other hand, if the construction company was controlling the pipeline and directing who should receive water therefrom, then that company was, in effect, "a de facto public utility operating without authority." *Munkeby v. County Water Co. Decision No. 57641, Case No. 6154, November 25, 1958.*

Classified Directory Listing of Lawyer's Associates Beyond Commission Jurisdiction

THE superior court of Pennsylvania affirmed an order of the Pennsylvania commission refusing to exercise jurisdiction over charges by a telephone company for listing a subscriber's associates in its classified directory. The associates were not subscribers and the classified directory, except in so far as

standard-type listings furnished free to subscribers are concerned, is an advertising medium and not a public service.

Appellant, a lawyer engaged in active practice in Philadelphia, is a subscriber to the company's service. His name appears in its alphabetical directory and is also listed free of charge in standard type in its classified directory. The lawyer has two associates who regularly make use of his telephone. Their names are listed in the classified directory by virtue of a separate contract unrelated to the company's tariffs, which expressly exclude listings in the classified directory, and not by virtue of the subscriber's telephone service contract. He took exception when the classified directory listing charge for the additional listings was increased.

Advertising Factor

In discussing classified directory listings, the court said that the element of advertising is present and that this fact has been recognized in that the printed portion of the directory listing contract is designated an "application for advertising." The court said that as an advertising medium, the classified directory is similar to the sale of appliances or equipment by utilities, which are not within the jurisdiction of the commission.

The court noted that listing in a directory is subject to commission jurisdiction only to the extent that this is a part of the public utility service. Standard-type listings of business and professional subscribers in the classified directory is a public service because of dedication to public use, whereas listings of nonsubscribers is a private undertaking.

It was considered significant that in this case the appellant was not complaining as a subscriber but as one who entered into a separate and private contract for a listing of his associates in an advertising medium, such contract being deemed private in nature. The court agreed with the commission that the associates, not being subscribers, were not entitled to the privileges relative to directory listings which are accorded subscribers, and that the company was not operating a public service in selling to a subscriber listings of the latter's associates in the classified directory.

Dissenting Opinion

Judge Rhodes, supported by Judge Ervin, disagreed with the majority on the ground that its action would permit the company to render a substantial utility service to the public without restraint. He pointed out that the commission, admittedly, has jurisdiction over rates charged subscribers for telephone service, including the listing of subscribers' names in both the alphabetical and classified directories. It was also conceded that the commission has jurisdiction over rates charged subscribers for listings of additional names in the alphabetical directory.

To say, therefore, that the commission lacked jurisdiction over rates charged subscribers for additional listings in the classified directory was, according to Judge Rhodes, to "draw a distinction without a difference." He believed that the listing of additional names in the classified directory is a public service. Furthermore, he did not believe that the designation of the listing contract as "application for advertising," should control the question of public service. If it did, he said, it would supply a ready subterfuge to avoid regulation.

Judge Rhodes further disagreed with the analogy drawn by the majority between the classified directory and the competitive sale of appliances by utilities. He pointed out that the classified directory is virtually a noncompetitive service so-

licited from, and provided essentially to, users of telephone service. In many instances the alphabetical and classified directories are inseparably bound together in the same volume. Other business and professional directories are compiled, and the listings solicited, under circumstances far different from those prevailing in the case of the classified telephone directory, in Judge Rhodes' opinion. *Felix v. Pennsylvania Pub. Utility Commission, No. 21, November 14, 1958.*

Transit Company Not Required to Promulgate Rule against Smoking on Buses

THE Rhode Island supreme court dismissed an appeal from an order of the public utility hearing board refusing to compel a transit company to establish and enforce a proposed rule relating to the suppression of smoking by passengers riding in its vehicles. In the opinion of the court, the board was warranted in finding that rules proposed were impractical and unreasonable. Therefore, the court could not say that the decision was arbitrary, unreasonable, or unjust.

The board had found that there was some smoking on buses and that the practice was "reprehensible and unlawful." A lady, complaining and proposing rules and regulations, contended that the board should have formulated some rule of its own even though it did not require the company to promulgate a rule suggested. The court said it did not pass upon a contention that the applicable law should be so construed because it was the court's opinion that implicit in the decision of the board in the instant case was a finding that measures employed by the company for the suppression of smoking were reasonably adequate and effective. *Stone v. Public Utility Hearing Board, 145 A2d 204.*

Offenses of Motor Carriers Draw Penalties

THE California commission imposed penalties upon motor carriers in several cases for their failure to observe minimum rates. One carrier's operating rights were suspended for five days because of substantial undercharges for hauling frozen fish, notwithstanding an unconfirmed allegation that the undercharges resulted from incorrect information obtained from an office of the commission. The burden is upon the carrier to obtain and apply the correct rates, it was pointed out. *Re Batastini (Batastini Trucking), Decision No. 56788, Case No. 6040, June 4, 1958.*

Undercharging for hauling building materials brought a five-day permit suspension for another carrier. In this instance, it appeared that the operator, finding the computation of charges somewhat difficult, allowed shippers to determine the amount which they should pay. *Re Bush (Bush Trucking Co.), Decision No. 56827, Case No. 6065, June 9, 1958.*

In a third decision, the commission ruled that undercharges did not result in a violation of a minimum rate tariff since a complete tariff had not been served upon the carrier as required by statute. Upon the issuance of the present permit, only amendments to a tariff furnished under a previous permit were served upon the carrier. This was held to be insufficient to

impose responsibility for the tariff. *Re Conn, Decision No. 56847, Case No. 6057, June 17, 1958.*

But a petroleum carrier could not escape its responsibility to publish a new tariff by claiming that it did not understand the commission's language requiring such publication. However, good faith was apparently shown in that the carrier had amended its rates to conform to minimum rate requirements. Operating rights were suspended for only one day. The utility has the duty and the burden of ascertaining what a decision requires, said the commission. *Re Moody, Decision No. 56773, Case No. 6050, May 27, 1958.*

A 60-day suspension of operating rights was imposed for failure of a carrier to examine records for undercharges and for its failure to take steps to collect specified undercharges and make reports, all as expressly ordered by the commission. However, the penalty was conditionally suspended, in view of the carrier's co-operative change of heart and also in view of the immaterial effect of the delay upon the end result of the order. *Re Stong (Whitey Stong Trucking), Decision No. 56991, Case No. 6036, July 15, 1958.*

Finally, a two-day suspension of operating rights was applied where a carrier withheld records of rate charges from commission inspection for a period of several months. This was an unreasonable delay. The commission indicated that such withholding of records is a serious offense inasmuch as their availability constitutes the cornerstone of rate regulation enforcement. *Re Panda Terminals of California, Inc. Decision No. 57074, Case No. 6038, July 29, 1958.*

Private Carrier Permit Granted Despite Common Carrier's Protest

THE Colorado commission modified the private motor carrier permit of an applicant to include authority to haul, to and from any point in the state, trailers to be serviced by the applicant, or trailers associated with the sale or trade-in to a sales agency managed by the holder of the permit.

The evidence indicated that the applicant was financially responsible, experienced, and had, or could obtain, suitable equipment.

There was a vigorous protest to the granting of the authority by the holder of a common carrier certificate which had formerly performed the services for the applicant. The commission cited the uniqueness of the application, because the presently authorized common carrier was in a competitive business with the applicant, and that of the sales agency, but decided that the granting of the permit would not impair the common carrier service of the protestant. The suggestion of impairment was that the common carrier would lose applicant's business, but the commission could not see where that limited loss of business would affect service to the general public. *Re Knowles (Knowles Trailer Repair Service), Application No. 16663-PP, Decision No. 51210, November 6, 1958.*

Other Recent Rulings

Bond Redemption Restriction. Porto Rico Gas & Coke Company, a subsidiary of a domestic corporation, proposing to issue $600,000 of first mortgage bonds with a 7½-year redemption limitation, was not required by the Securities and Exchange Commission to comply with the commission's policy of unrestricted refundability in view of an exemptive provision of the Public Utility Holding Company Act of 1935 applicable to foreign subsidiaries. *Re Porto Rico Gas & Coke Co. et al. File No. 70-3721, Release No. 13855, October 29, 1958.*

Gas Pipeline Proposals Altered. In the interest of greater economic feasibility and savings in construction costs, the Federal Power Commission authorized two natural gas pipeline companies to alter slightly the size of pipes and the routes of pipelines to be constructed under previously authorized proposals. *Re Houston Texas Gas & Oil Corp. et al. Docket Nos. G-9262, G-9960, October 17, 1958.*

Intervention Denied. The Federal Power Commission held that any interest a Georgia cotton manufacturers' association might have in a natural gas rate proceeding before the commission was too remote and conjectural to entitle it to intervene as of right, or even as a matter of public interest, where any interest of the association was adequately represented by the Georgia commission and by distributing companies and municipalities serving the association members. *Re Southern Natural Gas Co. Docket No. G-13258, October 17, 1958.*

Gas Pipeline Capacity Expanded. American Louisiana Pipe Line Company obtained permanent authority from the Federal Power Commission for a $7 million expansion of pipeline capacity serving Michigan affiliates, where expanded facilities had already been installed and financed under temporary authority. *Re American Louisiana Pipe Line Co. et al. Docket Nos. G-10396 et al. October 10, 1958.*

Subminimum Rates Rejected. The California commission denied a motor carrier permission to charge less than established minimum rates for hauling paper bags, even though the carrier showed profitable operation, where the showing failed to take all costs into account and where, moreover, the paper bag transportation would involve unlawfully long driving hours for truck drivers. *Re Corrigan (Trojan Freight Lines), Decision No. 56927, Application No. 39688, July 1, 1958.*

Public Fire Protection Rate Factors. The California commission said that factors to be considered when fixing a water company's public fire protection rates are the type and size of hydrants installed, the size of the water mains to which they are connected, whether the hydrants are owned and maintained by the utility or by the fire protection agency, and the relative value of the service rendered as measured by tests of flows from the hydrants. *Re Citizens Utilities Co. of California, Decision No. 57471, Application No. 39878, October 15, 1958.*

ONDUCT OF THE UTILITY RATE CASE

by Francis X. Welch, B. Litt., LL.B., LL. M.

HIS is the companion volume to "PREPARING FOR THE UTILITY RATE CASE." It deals with those procedural matters which come after the preparatory stages of the rate case. It presents *for the* time the *practical problems* of conducting the case—

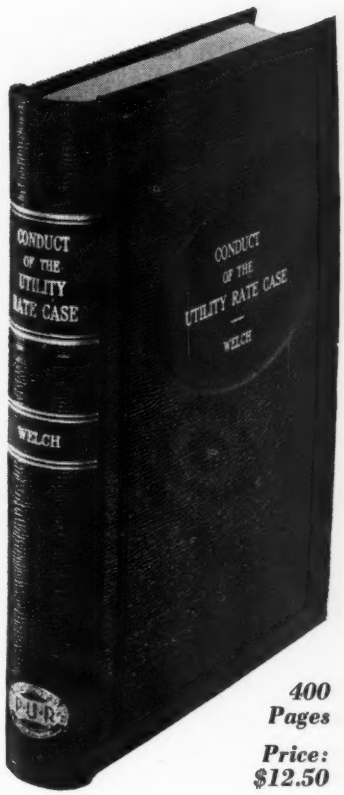
- **filing the application**
- **introducing the evidence**
- **examining the witnesses, etc.**

ect, it explains the *time-saving* and *effective ways* of making the *by-step progress toward* the *rate decision,* including information rning the requirements for *appeal* and *review.*

Nowhere in the literature of regulation will you find, in rela- y small compass, a comparable exposition and guide.

Here are the *chapter headings:*

Assisting In The Rate Case Preparation
The Formal Approach To The Rate Case
The Attorney-Client Relationship
Preparing The Petition or Application
Preparing The Testimony
Parties—Rate Complaints—Investigations
Negotiations Before Hearing—Prehearing Proceedings
Setting and Opening The Hearing
Examination In Chief
Cross-Examination and Rebuttal
Evidence in a Rate Case
The Case for Complainants or Rate Increase Protestants
The Expert Witness
Motions, Interlocutory Procedures, Arguments, Briefs and Decisions
Appeal and Review



400 Pages

Price: $12.50

"Conduct of the Utility Rate Case," like its companion, is designed not only to aid both *rate case practitioners* and *regulatory authorities,* but *everyone who has responsibilities or duties in connection with a rate case.*

PUBLIC UTILITIES REPORTS, INC., *Publishers*
SUITE 332, PENNSYLVANIA BUILDING
425 THIRTEENTH STREET, N. W.
WASHINGTON 4, D. C.

Industrial Progress

Pacific G&E Expansion Plan

PACIFIC Gas & Electric Company has asked the California Public Utilities Commission for permission to build a 12,500 kilowatt geothermal steam-electric generating plant at The Geysers, in northern California's Conoma county. The new plant, if approved, will generate electricity using natural steam piped from wells to P. G. & E.'s turbines.

It is tentatively scheduled for completion by April, 1960. Pacific Gas, which announced its intent to build the Geyser steam powered facility last summer, expects to invest about $2,000,000 in the plant and related transmission equipment.

Transcontinental Plans Third Underwater Crossing To Serve New York Area

A NEW dual natural gas pipe line under the Hudson river, crossing from North Bergen, N. J. to 72nd Street, Manhattan, is about to be constructed by Transcontinental Gas Pipe Line Corporation, principal supplier of natural gas to New York, Brooklyn and Long Island.

With the completion of these and other facilities now under construction, increased supplies of natural gas for millions of metropolitan residents will be made possible via Consolidated Edison Company of New York, Brooklyn Union Gas Company, Brooklyn Borough Gas Company and Long Island Lighting Company.

The new lines will be Transcontinental's third underwater crossing linking the metropolitan area with the gas fields of the Gulf Coast.

Like the other two, the third crossing to be laid under the Hudson will connect Transcontinental's 1840-mile main line system with New York distributing facilities, and deliver gas from as far away as the Rio Grande.

The new Hudson river crossing is part of a $167,000,000 construction program which will enable Transcontinental to increase its daily allocated gas deliveries by 238 million cubic feet to a total of 1,191,000,000 cubic feet for the entire system.

Additional gas from storage, to meet peak service demands will be made available by the development of a large natural gas storage field covering 14,000 acres in north central Pennsylvania. Transcontinental is participating with two other companies in this development and is building a 190-mile pipe line to connect the storage field with the New York area. When these facilities are completed, the Transcontinental system will be able to more than double daily deliveries of storage gas from 136 million to 340 million cubic feet. Of this total approximately 130 million cubic feet will be available for the New York area.

A-C Releases New Mobile Substation Bulletin

ALLIS-CHALMERS versatile mobile substations in ratings through 10,000 kva, 60 kv and below, are described in a new bulletin released by the company.

Equipped with transformer, high voltage switch, lightning arresters, fuses, and low voltage switchgear, the substations are designed for emergency service, abnormal loads, as continuity equipment, or as a temporary substation.

The units are available with two or three high voltages and several low voltages connectible either delta or wye. The equipment is securely mounted on a standard semi-trailer that conforms to all highway regulations. It is equipped with four jacks for leveling and supporting loads while the substation is in use.

Copies of "Power on Wheels," Bulletin 61B9060, are availa request from Allis-Cha mers, waukee 1, Wisconsin.

United States to Regain A Power Lead, Expert Sa

THE U. S. will eventually re atom power lead, Kelly McBea ager of the nuclear division of and Narver, engineering organi declared in a talk recently.

England, not Russia, Mr. M said, is our chief competitor atomic power field. The Russ actor program appears confined to plutonium production ins power. The United Kingdom ever, decided on a reactor ty pressed it to a maximum pro power output. It will far out the United States in nuclear k in the 1960's, Mr. McBean a Nevertheless, based on exhi information exchanged at the international conference, Mr. said the United States has a strated technological leadersh clear power production.

Westinghouse Receives For Anti-Noise Activi From NNAC

THE Westinghouse Electric Transformer Division, Shar has been awarded the 1958 "C of Award" from the Nation Abatement Council, A. J. NNAC president, has announ corporation and its division "For publication and applicat search on the reduction of n electric power transformers

Westinghouse has been basic investigation of tra sound since 1932. This rese the years has resulted in two achievements; the buil ing transformers designed for sou

s standards set by the National trical Manufacturers Association; anufacturing, at present, of transers with a sound level two decibower than that of seven years ago. hong other activities, Westinghas been conducting courses in d and related fields for technical nnel at Sharon, Pa., and has been g weekly demonstrations at the st of its five anechoic (no echo) s to utility engineers and others sted in transformer sound prob-

United Illuminating Plans $20,000,000 Expansion

United Illuminating Company dgeport, Conn.) plans a $20,00 expansion of its harbor stapower plant.

lliam J. Cooper, president of the any, announced that the new adwill be in operation by the er of 1961. An additional 160,000 atts of power capacity will the station's present power.

project will be the largest in mpany's 60-year history.

nsas Louisiana Gas Plans Expansion

ANSAS Louisiana Gas Com- Shreveport, La., plans to build nber of small natural gas facilring 1959 to connect new gas es.

company has asked the power ssion for authority to spend up $50,000 for such facilities, with ngle one to cost more than 00.

ketown Packaged Multi Jet Mixer

KE & Townsend, Inc., design- constructors of propane plants, as available a packaged Multixer designed for LP-Gas plants varying load. For both low and ressure, the unit fills require- of a few inches or a hundred or more.

i-Jet is designed to give more control and uniformity of Btu t, and more flexible low-load ons not possible in single jet Operates manually or automat- As a self-contained unit, Multi- uires no building and is de- for outdoor service. Drakeits are supplying 100% servmperatures of 30° below zero. unit is suitable for standby, peak shaving or 100 per cent service applications in small or medium sized plants. Features are covered by patents in the United States as well as Canada, Great Britain, France and Holland.

For literature and further information, write Drake & Townsend, Inc., 11 West 42nd Street, New York 36, N. Y. In Canada, Draketown-James Ltd., 70th Ave. & MacLeod Trail, Calgary, Alberta.

Bulletin on Centralized Control Systems

BULLETIN 106 (16 pages, 2-color) illustrates and describes the design approach, materials, construction and modern facilities used in manufacturing a variety of Centralized Control and Data Presentation Systems. Available without cost from Panellit, Inc., 7401 No. Hamlin Ave., Skokie, Illinois.

Dr. Lauchlin M. Currie Elected B&W Vice President; Will Head Nuclear Activities

DR. Lauchlin M. Currie has been elected a vice president of The Babcock & Wilcox Company and placed in charge of the Atomic Energy division, it was announced recently by M. Nielsen, president.

To accept the new B&W post, Dr. Currie retired as a vice president of Union Carbide Nuclear Company, a division of Union Carbide Corporation.

New Transitorized Mobile Communications Equipment Demonstrated by Motorola

MOBILE equipment users and members of the press were recently shown two new transistorized products developed by Motorola. One was a two-way mobile radio half the size of former units, called MOTRAC. The new radiophone utilizes more than 20 transistors, weighs only 25 pounds and uses one-third to 1/15 of the current normally required to operate such equipment.

Its very low power drain is due to the use of transistors which, along with heavily printed circuits, makes it a most reliable piece of communications equipment.

Its compactness makes it adaptable

(*Continued on page 22*)

to almost any kind of installation in cars, trucks and boats. Audio output is 5 watts and it comes in models for both wide band and "split channel" operation.

The other communications product shown by Motorola was in the Dick Tracy class. The "Handie-Talkie" Pocket Receiver and "Handie-Talkie" Transmitter can make anyone a mobile communications station. Range and reception varies from one to 10 miles depending on terrain and type of station being communicated with.

This equipment, both receiving and transmitting, weigh less than 4 pounds and can be easily fastened to one's belt. Unique feature is that the transmitting station can selectively pick-out one person from among a possible 10,000 receivers to talk to. Only the receiver wanted is activated. This makes instantaneous contact a reality.

Receivers have a full 100 milliwatts of audio in an efficient dynamic speaker which means reception is loud and clear even under noisy conditions. The "Handie-Talkie" Receiver is fully transistorized, operates on 3 Mercury batteries for 200 hours or can be equipped with a rechargeable nickel-cadmium battery that will operate for 20 hours with one charging.

Field and construction work for utilities, building projects, fire and police work, manufacturing and processing—these and many more applications ways in which this compact, pe communications equipment m to good use.

New Sylvania-Corning Bro "Nuclear Fuels: Key to Rea Performance"

A NEW booklet, "Nucle Key to Reactor Performa been made available by the Syl Corning Nuclear Corp.

The 24-page booklet, pri colors and fully illustrated graphs and detailed line s divided into three princip An introductory section d

of R actor Design," and touches
e p ncipal reactor components
eir unctions.
sec d section details reactor
inc ding solid fuel elements,
fue , fuel element composition
esig The "typical nuclear fuel
is c ered as is the reprocessing
ent f el elements.
e thi d section summarizes typi-
acto and their fuels, including
are rmed "historically signifi-
eact rs," as well as recently built
rs.
e bo klet also itemizes the com-
s nuclear services, including en-
ring nd development at its lab-
y in Bayside, production at its
lants in Hicksville, L. I., as well
pioneering "package fuel plan"
actor operators.
ies of the booklet may be ob-
from the Sylvania-Corning Nu-
Corp., Bayside, N. Y.

ester Cable Issues Folder On Control Cables

X-PAGE folder on plastic insu-
nd jacketed control cable (rated
olts) has just been issued by
r Cable Corporation, Chester,
York. It lists the specifications
all diameter—station—flexible
pervisory control cables with 2
conductors. Also IMSA munici-
nal cables Specifications 19 and
956 with 3 to 12 conductors. As
lists in "specials" Chester offers
oding, jacketing and insulation
ordance with prescribed stand-

iled information regarding
ontrol cables is available on re-
from Chester Cable Corp., 299
nd Avenue, Chester, New York.

Heat Pump Discussed At Forum

attitude of electric utility com-
toward the Heat Pump was
bje of the first Customer
h d recently by the York
n of Borg-Warner Corpora-
York, Pennsylvania.
old D. Spillman, manager of
pp ation department, Phila-
lectric Company, was the
pe er representing the power
ie Mr. Spillman is chairman
s s methods and develop-
on mittee of the Edison Elec-
titute and is also active in the
E. and A.S.R.E.
audience of 75, including York
engineers and other key per-
sonnel, heard Mr. Spillman discuss the favorable economics of two large heat pump installations in the Philadelphia area.

The first, at Levittown Shopping Center, is an installation of small package heat pumps totalling 432 tons of refrigeration. Operation cost comparisons showed that the heat pumps compared favorably with oil heat in the area as long as the price of oil averaged about 13.5 cents per gallon.

The heat pumps in this installation use resistance heating for auxiliary heat during low winter temperatures. These auxiliary heaters come on during the coldest periods when the power company's demand is at its highest peak. Mr. Spillman pointed out that this was not a desirable situation for a power company and therefore a two-stage heat pump such as York installed at the Ballinger Company in Philadelphia is ideal.

Data gathered at the Ballinger Company over the past two years by Philadelphia Electric has proven that a night set-back (from 72 to 65 degrees) was not financially advantageous.

Using night set-back, the yearly bill for total electrical usage was approximately $1700. During January and February, the demand went to 175 KW in the morning when the equipment was operated at full capacity to overcome the set-back. The next year, without set-back and an increased number of degree-days resulting from more severe weather, the total bill stayed around $1700 and the demand stayed below 145 KW.

The Speaker emphasized that York and other sales engineers have ready assistance available from local utilities such as Philadelphia Electric, which sells electricity, gas, and steam service. As an example, he showed a brochure outlining his company's promotional plans for 1959 which placed strong emphasis on the heat pump.

The January Customer Forum will be devoted to the customer's viewpoint in air conditioning large office buildings. February will cover the relationship between the manufacturer of air conditioning, heating and refrigeration equipment and the consulting engineer.

Electric Furnace Iron-Smelting Processes To Be Studied

Under what circumstances, present and future, will electric furnaces be used to smelt iron ore in the United States? That is the basic question which has prompted some 20 electric utility, steel, and furnace equipment manufacturing companies jointly to sponsor a technical-economic study just now getting under way at Battelle Memorial Institute. On the basis of their eight-month study, specialists at the Columbus, Ohio, research center expect to develop a comprehensive report which will provide an answer.

The study will have the following objectives: 1. To evaluate the present position and probable future status of processes for the electric smelting of iron ore in the United States; 2. To determine the conditions under which electric-smelting processes can be used profitably in the United States for the manufacture of pig iron, cast iron, and/or steel; 3. To determine the relative advantages of the blast-furnace process and the electric-furnace process for potential users with different interests; and 4. To develop and analyze information which is needed in planning for expansion, planning for market developmet, and planning of research programs.

"The technical feasibility of a number of the so-called 'direct reduction' processes using electric furnaces has already been established," according to Battelle technologists Raymond W. Hale and Naaman H. Keyser. "We know that, with these processes, it is possible to produce pig iron directly from iron ore. The question still remains, however, whether iron users would be better off using iron produced by the conventional blast-furnace process or by one of the electric furnace direct-reduction processes. We hope to weigh the advantages of these alternatives in a number of situations."

Mr. Hale, an economist, and Mr. Keyser, a metallurgist, indicated that there are several barriers to the wider acceptance of electric-smelting processes, but this situation appears to be changing rapidly. Continuation of recent trends, they predicted, will make electric smelting competitive with blast furnaces in an increasing number of situations.

"The cost of producing pig iron by electric direct-reduction processes," they said, "is generally higher than the cost of producing pig iron in a blast furnace, but there appear to be some situations today where the costs by the two methods are closely competitive. Generall, these situations will be those which involve conditions favorable to the use of electric furnaces. Such conditions include: low-

(*Continued on page* 24)

cost electrical energy; good availability of low-cost coal or fuel gas; poor availability or high cost of metallurgical coke; relatively low desired capacities—roughly 100 to 400 tons of iron per day; and a need for a relatively small capital investment per ton of capacity."

Companies that have, thus far, joined in the sponsorship of the new electric-furnace study include: Acme Steel Company; Alan Wood Steel Company; Armco Steel Corporation; The Cincinnati Gas and Electric Company; The Cleveland Electric Illuminating Company; Copperweld Steel Company; The Detroit Edison Company; Granite City Steel Company; Great Lakes Carbon Corporation; Houston Lighting and Power Company; Illinois Power Company; Interlake Iron Corporation; Kaiser Steel Corporation; Keystone Steel and Wire Company; Laclede Steel Company; Lukens Steel Company; National Carbon Company, Division of Union Carbide Corporation; Ohio Edison Company; Philadelphia Electric Company; Pittsburgh Steel Company; Sharon Steel Corporation; Swindell-Dressler Corporation; Union Electric Company; and West Penn Power Company.

The Battelle study will require the joint efforts of a team of technical economists headed by David D. Moore and a team of process metallurgy research scientists headed by Harold W. Lownie. This group includes several men who participated in a somewhat similar major survey conducted by Battelle in 1952. The earlier survey resulted in the publication of a widely read report on the "Comparative Economics of Open-Hearth and Electric Furnaces for Production of Low-Carbon Steels." Metallurgists contributing to the present study have conducted research ranging from laboratory to pilot-plant work on a number of electric-furnace reduction processes.

R. A. Ransom Company Opens New York City Office

R. A. RANSOM Company, Inc., consulting engineers, which has been serving the gas industry on a national basis from its main office in Washington, D. C. since 1946, has expanded its activities further by opening a New York City office. The new office at 61 Broadway, New York, will be headed by Lester Simon, who recently became associated with the R. A. Ransom Company, and has been elected a vice-president and director.

The New York office was established to provide closer relations with the financial community for Ransom Company clients who require services related to financing. At the same time, it will be fully staffed to carry on the same general engineering and business consulting services offered by the Washington headquarters. These include rates, industrial contracts, sales programs, gas supply, peak shaving, representation before the Federal Power Commission, and state regulatory bodies, econmic feasibility studies of new projects, design, and engineering supervision of construction.

Mr. Simon has been in the utilities consulting field for 12 years. He comes to R. A. Ransom Company from W. C. Gilman & Co., public utilities engineering and financial consultants of New York City, where he was a general partner. Previously, Mr. Simon was associated with Commonwealth Services, Inc., as senior consultant, with considerable public utilities experience.

"Diaper Service" For Nuclear Fuels Advocated

THE electric utilities now getting into the production of atomic power would like nuclear fuel suppliers to inaugurate a "diaper service," the 51st annual Meeting of the American Institute of Chemical Engineers in Cincinnati, Ohio, was told recently.

The diaper service would supply enriched uranium or other fuel to the atomic energy plant of the utility and remove irradiated, or spent fuels, for reprocessing, it was indicated in a paper, Fuel Cycle Costs With Standard Fuel Elements, by E. B. Gunyou, of Alco Products, Inc., Schenectady, N. Y., for presentation at a nuclear fuel processing symposium.

"The nature of the materials being handled in every step of the nuclear fuel cycle results in an unusually high fixed variable plant cost ratio," he said. "As a result, unit costs are very sensitive to throughput rates when such rates are low. On the other hand, the heavy investment for special facilities to handle any throughput—no matter how small—allows a considerable expansion of facilities and throughput at a much reduced incremental unit cost, once a certain minimum rate has been reached.

"Criticality limitations, which regulate the maximum one-line capacity at each step in the cycle, tend to place this break-point in somewhat the same area for each step in the fuel cycle. This, in itself, is sufficient to [illegible] consideration of a possible inte[illegible] operation to supply a comple[illegible] service' for nuclear power p[illegible] reduction of shipping costs (wh[illegible] fissionable materials are hig[illegible] products uncontaminated w[illegible] products), elimination of [illegible] duplication for accountal[illegible] chemical control, staff fle[illegible] cover maintenance emergen[illegible] spent fuel plants, and bett[illegible] tion of the large land are[illegible] for a spent fuel plant, all su[illegible] considerations. In additio[illegible] tomers (the utility compa[illegible] repeatedly expressed their wis[illegible] public and private for such a [illegible] to be supplied at predetermi[illegible]

So far, however, there ha[illegible] a sufficient volume of an[illegible] element to "justify the heav[illegible] and business risk involved in [illegible] up a 'nuclear fuel service,'" Gunyou said.

Load Distribution Anal[illegible] Computer

A LOAD distribution analog[illegible] puter which is said to provide i[illegible] visual interpretation of operati[illegible] in public utility electric power s[illegible] and to range in cost up to 50 [illegible] less than conventional apparat[illegible] forming the same function, ha[illegible] developed by the Belock Instr[illegible] Corporation, College Point, [illegible] York.

Housed in a compact and p[illegible] cabinet, convenient for desk t[illegible] the new computer replaces [illegible] room filling devices. Operated [illegible] manipulation of dials, it also [illegible] away with the need for "load[illegible] rules" and consultation of [illegible] graphs and curves.

Designated as BELAC, the [illegible] omy loading analog computer [illegible] to be adaptable for custom pr[illegible] ming to meet special electric [illegible] system requirements and helps [illegible] fuel and maintenance costs by i[illegible] ing information on what is th[illegible] efficient load distribution among[illegible] generators at any given mome[illegible] viding direct and immedi[illegible] to changing load situation, i[illegible] response time and allows adju[illegible] to variable conditions in the d[illegible] of information not covered b[illegible] charts. It does not depend up[illegible] calculated data.

Information fed to the comp[illegible] manual adjustment of control[illegible] includes fuel costs, maximu[illegible] minimum capabilities of in[illegible]

ors in a system, base load gen- interchange sales and system

ision is also included for fu- sertion of the effect of line losses omy loading computations and ue of generation for quoting ange sales by the integration of ental cost over the full range. tem conditions, including sys- ad, are continuously variable e entire range, and any given e can be switched into or out comp utation at will.

ng the varying factors dealt the computer are turbine back e, spinning reserve data, cool- ter temperature limitation, ef- f hydrogenation, changes in sts and tie-in line sales.

G-E Adds To Microwave Line

RAL Electric's Communica- roducts Department, Lynch- Va., is broadening its line of ave products with the intro- of a new series of equipment d to operate in the 6 KMC Addition of the 6 KMC line to sting 2 KMC line places Gen- ectric in a position to offer the nication industry the first and crowave line operating in both ncy bands.

ducing the availability of the series, General Electric's na- icrowave sales manager, Wal- Sutter, said the new equip- ill project the company into new markets and will offer rs in presently served mar- wider selection of equipment y their needs.

the first time," Mr. Sutter out, "microwave users can the advantages of 2 KMC C equipment in their sys- ing. This concept makes ater flexibility than previ- ttainable and enables sys- rs to achieve optimum a wider choice of prod-

er explained that the con- th in the use of microwave need for a high channel stem to round out the Gen- ic Company's product line. KMC line offers 120 chan- ve the expanding commu- eeds of microwave users. Electric will now offer both ision and Frequency Divi- plexing with its 6 KMC nd will continue to supply Time Division with its 2 KMC equipment.

When long haul systems requiring only moderate channel loading are needed General Electric will recommend its 2 KMC product, Mr. Sutter said, and where channel capacity is desired the 6 KMC line will be suggested.

Robert E. Lewis Elected President of Sylvania

ROBERT E. Lewis has been elected president of Sylvania Electric Products Inc., the company's board of directors announced recently. Previously he was a senior vice president of the company.

As president, Mr. Lewis succeeds Don G. Mitchell, who will continue as chairman of the board. On November 6th, the boards of directors of General Telephone Corporation and Sylvania voted approval, in principle, of the merger of Sylvania into General Telephone. Under the merger plan, it is contemplated that Mr. Mitchell will become president of the combined company, which will be known as "General Telephone & Electronics Corporation."

Gas Appliance Men See 9.1% Upsurge

GAS appliance shipments in 1959 will top this year's total by 9.1 per cent, it was determined through analysis of a poll of manufacturers who usually account for 70 per cent of the industry's output of household and commercial gas equipment.

Replies to a questionnaire issued by Edward R. Martin, director of marketing and statistics for the Gas Appliance Manufacturers Association, showed that only 33 of 286 individual responses anticipate a business decline in the new year.

New "Shelter-clad" Enclosures Protect Against the Elements

NEW *Shelter-Clad* walk-in enclosures which provide complete protection against the elements for men and 2,000 to 5,000-volt motor control in outdoor installations has been announced by Allis-Chalmers.

The enclosures consist of two facing rows of Allis-Chalmers Type H motor controls bridged by a sturdy, metal roof. The backs of the control cabinets form the outside walls of the unit. A 5-ft. wide aisle extends the length of the enclosure which has doors at each end.

The basic unit can consist of any number of facing cabinets and any number of pairs of cabinets can be added or removed.

The enclosures make it possible for field personnel to inspect and maintain the controls in any weather safely and conveniently. The cabinets can also be obtained without instrumentation and arranged to provide office or storage space. They can be provided with lights and bus ducting can be from overhead, below or through the side. The units meet NEMA 3 standards for weather resistance.

Tandem-Compound Turbine for Nuclear Service

STEAM turbines designed for use with nuclear power plants to date have operated with saturated steam at relatively low temperature; an exception to this is the 250-mw, 1800-rpm steam turbine being built by the Westinghouse Electric Corporation for the Indian Point station of the Consolidated Edison Company of New York, Inc.

This unit will operate with a separately fired superheater. Inlet steam conditions to the turbine are 355 psig, 1,000 degrees F, and one-inch hg absolute exhaust pressure.

In general, the characteristics of this turbine are similar to those of the intermediate- and low-pressure elements of large conventional cross-compound reheat turbines. Because of the large volumetric flow to the turbine exhaust, two rows of 44-inch exhaust blades are used. This will be the largest tandem-compound 1800-rpm turbine Westinghouse has built.

Hubbard and Co. Introduces Extra Heavy Duty Cutout

ONE of the first completed designs to emerge from Hubbard and Company's new Electrical Research Laboratory is the electric utility industry's first Single-Vent, Small-Bore cutout, rated extra heavy duty (10,000 amperes at 5.2kv and 7.8kv, and 8,000 amperes at 15kv.

This new Hubbard cutout is an addition to their existing line and is specifically designed to keep step with the need for dependable service on modern, high capacity utility systems. The new testing facilities were used to duplicate field conditions and prove the reliability and dependability of the final design.

The unique informational program for utility employees . . .

The P.U.R. Guide

devoted to the economics of public utilities and to the many important, non-technical phases of utility operations.

It fulfills requirements for information concerning the basic economic problems of all utilities—electric, gas, telephone, transit and water.

This new and distinctively different approach to the educational needs of utility employees offers company managements an effective and reasonably-priced aid in the development of managerial personnel by providing fundamental, non-technical information specifically relating to matters of organization, financing, management, operation and regulation of public utilities.

IT'S EASILY UNDERSTANDABLE

The program comprises a systematically and consecutively arranged series of 50 weekly, 8-page GUIDES which present a simplified, progressive, step-by-step story, considered a "journey of understanding," about the nature of the utility business, its important place in the American economy, the present conditions under which the business is conducted, its day-to-day objectives and responsibilities, the existing problems with which it is confronted, and many other pertinent current subjects.

Voluntary examinations by mid-term and final questionnaires are embodied in the program. Upon satisfactory completion of the questionnaires, an appropriate certificate is issued. An index, glossary of industry terms and words, and suitable binder for the weekly GUIDES are also provided. Reprints of articles from Public Utilities Fortnightly giving more extended coverage of important subjects, are occasionally included for optional reading.

IT'S FLEXIBLE

THE P.U.R. GUIDE offers excellent opportunities for beneficial use by companies which adopt either the group-discussion or conference-type method of pursuing the program, or the home-study method. For companies which prefer the conference method, a Leader's Manual, with suitable binder, is available, without extra charge, to group or discussion leaders. The Manual contains additional background information on the subjects considered in the weekly GUIDES to which they relate and also provides questions which may be used to stimulate discussion and interest in references.

For companies preferring the home-study method, it should be noted that each weekly GUIDE contains self-testing questions, with answers furnished in the following GUIDE.

IT'S ACCEPTED

THE P.U.R. GUIDE in its first year of publication has met with very favorable acceptance and is already in use by a great many companies throughout the country.

MMENTS ABOUT THE P.U.R. GUIDE PROGRAM

Our Company is currently involved in several training programs, and I feel qualified to evaluate the information that you are sending out. I think this type of **material is, without a doubt, the very best** that could be obtained for key utility employees.

Director of Personnel, Electric Company

e are pleased we have had an opportunity to offer the se to our management people.

E ployee Relations Department, Electric Company

e feel that even those who have been in the utility in- ry for many years **can learn much by just reading the erial.**

District Manager, Electric Company

e all feel that this "information program for utility em- ees" is a program that is **needed in the public utility stry.**

Vice President, Gas Company

am sure that the total series of 50 will prove of **inesti- le value to the utility industry.**

Vice President and General Manager, Telephone Company

THE P.U.R. GUIDE program is the **best basic public utility information series** I have ever encountered.

Vice President, Gas Company

One group which is using THE P.U.R. GUIDE has been holding regular discussion meetings. We have found the **Leader's Manual helpful.**

Vice President, Gas Company

Two things have particularly impressed me about THE P.U.R. GUIDE. First, is the **complete manner** in which your editors treat the various topics; second, the **simplicity in writing.**

Employment Supervisor, Gas Company

There is a **definite need** for such a type program in our industry.

Training Assistant, Electric & Gas Company

LINE OF SUBJECT COVERAGE *Basic Understanding Series*

E NO.	
	tarting a Utility Business
	he American Economy
	hat is a Public Utility?
	he What and How of Regulation
	he Pattern of Federal Regulation
	he Regulation of Rates
	hat is Value?
	tility Expenses
	niform Accounting Systems and Depreciation
	he Profit from Utility Operation
	hat is a Fair Return?
	harging for Utility Services
	harging for Utility Services—Rate Forms
	hy Differences in Charges?
	ate Forms and the Customer's Viewpoint
	ate Comparisons and Rate Levels
	he Rate Case
	ervice Standards
	rowth and Expansion of Utility Service
	ombination, Co-ordination, and Competition in Utility ervices
	he Utility Service Area
	tility Financing
	ecurities Used in Financing
	inancial Measures of Utility Operations
	inancial and Security Regulation

GUIDE NO.	
26.	Making a Security Issue
27.	Management Principles and Responsibilities
28.	Organizational Pattern for Management
29.	Regulation and Management
30.	Marketing and Merchandising Utility Services
31.	Customer Service Departments
32.	Labor Relations and Public Utilities
33.	Employee Relations
34.	Employee Relations—Understanding Each Other
35.	Public Relations
36.	"Private Ownership" of Public Utilities
37.	Public Ownership and Operation of Utility Enterprises
38.	The Federal Power Policy
39.	TVA—The "Demonstration" Project
40.	The Extent of Federal Projects
41.	The Co-operative and Rural Utility Service
42.	Special Problems of Natural Gas
43.	Special Problems of the Telephone Industry
44.	The Taxation of Public Utilities
45.	The Public Utility Holding Company
46.	Regulation of Holding Companies
47.	The Utility in the Community
48.	The Utility and Community Development
49.	Current Problems
50.	Private Utilities in the American Economy

FOR SELECTIVE USE

THE P.U.R. GUIDE is not intended for mass distribution, but rather for a selected number (approximately ce t) of company employees annually. It is primarily for the benefit of supervisory and new college ate employee groups.

Con any enrollments are accepted at $50 per enrollment. To start company employees in this program, it ces ry only to furnish the names of the enrollees with home or office addresses, as desired. Order form ins nrollment dates.

For further information concerning THE P.U.R. GUIDE program, write

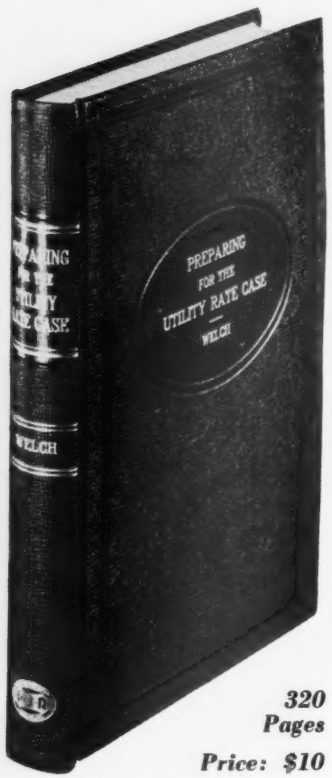
PUBLIC UTILITIES REPORTS, INC.—PUBLISHERS

332 Pennsylvania Building • Washington 4, D. C.

PREPARING FOR THE UTILITY RATE CASE

by Francis X. Welch, B. Litt., LL. B., LL. M.

The satisfactory solution of the most expensive and difficult problem of Commission Regulation—The Rate Case—depends very largely upon how well and how thoroughly the details of ***preparation*** have been given attention. "Preparing for the Utility Rate Case" is a compilation of experiences taken from the record of actual rate cases. It has required two years of research, study and analysis, conducted by Francis X. Welch, Editor of PUBLIC UTILITIES FORTNIGHTLY, with the aid and cooperation of selected experts, to complete this treatise.



320 Pages

Price: $10

The volume, being the first of its kind, should be found invaluable to ***utility executives, rate case personnel, attorneys, accountants, consultants, regulatory commissions, rate case protestants,*** and, in fact, to all persons engaged in or having an interest in rate cases.

Among the values of this compilation are the reviews of methods and procedures, which have been found helpful in—

- **simplifying and speeding up rate case groundwork**
- **saving time and expense of companies, commissions and other parties**
- **cutting down "lag losses"**
- **aiding the consumer by making possible faster plant and service improvements**
- **increasing the confidence of investors**

—all of which are in the public interest.

The volume does not offer a program of standardized procedures for rate case preparation, but ***reviews*** the ***plain*** and ***practical methods that have been used.***

These *chapter headings* indicate the coverage:

The Birth of the Utility Rate Case
Public Relations and the Rate Case
The Birth of Utility Company Rate Opposition
The Grand Strategy of the Rate Case
Selection and Function of the Attorney
The Mechanics of Rate Case Preparation
Proof of the Rate Base
Completing the Rate Base; Working Capital
Operating Expenses
Operating Expenses, Continued—Annual Depreciation
The Rate of Return
Rate Adjustments—Allocations
The Completed Rate Base—Overheads, Land, Depreciation, Working Capital

PUBLIC UTILITIES REPORTS, INC., *Publishers*
SUITE 332, PENNSYLVANIA BUILDING
425 THIRTEENTH STREET, N. W.
WASHINGTON 4, D. C.

PROFESSIONAL DIRECTORY

• This Directory is reserved for engineers, accountants, rate experts, consultants, and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, financing, design, and construction. » »

63 years of leadership in property valuation

The AMERICAN APPRAISAL Company

Home Office: Milwaukee 1, Wisconsin

Offices in 18 cities coast-to-coast

BLACK & VEATCH

CONSULTING ENGINEERS

Electricity, Natural Gas and Water Utilities
Production, Transmission, Distribution

Reports, Design, Supervision of Construction
Investigations, Valuation and Rates

1500 MEADOW LAKE PARKWAY, KANSAS CITY 14, MISSOURI (SINCE 1915)

BONI, WATKINS, JASON & CO., INC.

Economic & Management Consultants

37 Wall Street
New York 5, N. Y.

437 Shoreham Bldg.
Washington 5, D. C.

Rate Cases — Management and Market Studies — Rate of Return Analysis

Cost of Service Determination — Economic and Financial Reports

---

DAY & ZIMMERMANN, INC.

ENGINEERS & CONSTRUCTORS

NEW YORK — PHILADELPHIA — CHICAGO

Design — Electric Line Construction — Management — Reports and Valuations

---

DRAKETOWN

PROPANE PLANTS

★ ***Standby***
★ ***Augmentation***
★ ***100% Town Supply***

Design • Engineering • Construction

DRAKE & TOWNSEND INCORPORATED — 11 WEST 42ND STREET NEW YORK 36, N. Y.

F B&D

Ford, Bacon & Davis

VALUATION REPORTS — **Engineers** — CONSTRUCTION RATE CASES

NEW YORK • CHICAGO • LOS ANGELES

FOSTER ASSOCIATES, INC.

Rate Cases • Cost of Service and Other Regulatory Methods
Rate of Return Analyses • Rate Design
Natural Gas Field Price Problems • Economic and Financial Reports

1523 L STREET, N.W.
WASHINGTON 5, D. C.

326 MAYO BUILDING
TULSA 3, OKLAHOMA

(Professional Directory Continued on Next Page)

PROFESSIONAL DIRECTORY
(continued)

FRANCISCO & JACOBUS
ENGINEER & ARCHITECT
Specializing in the location and design of
Customers Service Centers and Operating Headquarters
NEW YORK WESTBURY CLEVELAND TUCSON

GIBBS & HILL, INC.
Consulting Engineers
DESIGNERS • CONSTRUCTORS
Los Angeles **NEW YORK** Tampa

GAI
FOUNDED 1906

GILBERT ASSOCIATES, INC.
ENGINEERS and CONSULTANTS
525 LANCASTER AVE.
READING, PA.
WASHINGTON • NEW YORK

W. C. GILMAN & COMPANY
CONSULTING ENGINEERS
ELECTRIC — GAS — TRANSIT — WATER
Financial and Economic Reports
Valuations—Rate of Return—Depreciation Studies
Traffic Surveys—Fare Analyses
55 Liberty Street New York 5, N. Y.

Harza Engineering Company
Consulting Engineers
Calvin V. Davis Richard D. Harza E. Montford Fucik
REPORTS — DESIGN — SUPERVISION
HYDROELECTRIC PLANTS AND DAMS — TRANSMISSION LINES — FLOOD CONTROL — IRRIGATON — RIVER BASIN DEVELOPMENT
400 West Madison Street Chicago 6, Illinois

GUSTAV HIRSCH ORGANIZATION, INC.
1347 West 5th Ave., Columbus (12) Ohio
Telephone Hudson 8-0611
Consulting and Supervisory Engineers and Contractors
Construction and Operation of Utility Enterprises

HOOSIER ENGINEERING COMPANY
Erection and Maintenance of
Electrical Transmission and Distribution Lines
1350 HOLLY AVENUE • COLUMBUS, OHIO

Mention the FORTNIGHTLY*—It identifies your inquiry*

PROFESSIONAL DIRECTORY *(continued)*

INTERNATIONAL ENGINEERING COMPANY, INC.

Design and Consulting Engineers

Dams—Power Plants—Transmission Lines—Railroads—Highways
Investigations—Reports—Plans and Specifications
Cost Estimates—Supervision of Construction

74 New Montgomery Street — San Francisco 5, California

JENSEN, BOWEN & FARRELL

ENGINEERS
ANN ARBOR, MICHIGAN
APPRAISALS—INVESTIGATIONS—DEPRECIATION STUDIES—
COST TRENDS—REPORTS
for Rate Cases, Security Issues, Regulatory and Accounting Requirements
ORIGINAL COST AND CONTINUING PROPERTY RECORD
DETERMINATION

The Kuljian Corporation

ENGINEERS • CONSTRUCTORS
POWER PLANT SPECIALISTS
DESIGN • CONSTRUCTION MANAGEMENT
SURVEYS • INVESTIGATIONS • REPORTS
1200 N. BROAD ST., PHILADELPHIA 21, PA.

William S. Leffler, Engineers Associated

Utility Management Consultants for past 35 years Specializing in

GAS
ELECTRIC
WATER

DEVELOPMENT OF CLASS RATES OF RETURN AND
CLASS UNIT COST DETERMINATIONS FOR
RATE STRUCTURE MODERNIZATION AND RATE CASES

REGULATORY and MUNICIPAL PROBLEMS

Send for brochure: "The Value of Cost Analysis to Management"
DARIEN, CONNECTICUT

CHAS. T. MAIN, INC.

Power Surveys—Investigations—Valuations—Reports
Design and Construction Management
Steam, Hydro Electric and Diesel Plants—Gas Turbine Installations
BOSTON, MASS. - - - **CHARLOTTE, N. C.**

Pioneer Service & Engineering Co.

CONSULTING, DESIGNING AND
OPERATING ENGINEERS
PURCHASING
231 SOUTH LA SALLE STREET

PIONEERS IN SERVICE AND ENGINEERING — PS&E

SPECIALISTS IN
ACCOUNTING, FINANCING, RATES,
INSURANCE AND DEPRECIATION
CHICAGO 4, ILLINOIS

SANDERSON & PORTER ENGINEERS

DESIGN • CONSTRUCTION

NEW YORK — NEW YORK

(Professional Directory Continued on Next Page)

PROFESSIONAL DIRECTORY
(continued)

Mention the FORTNIGHTLY—*It identifies your inquiry*

PROFESSIONAL DIRECTORY *(concluded)*

GANNETT FLEMING CORDDRY AND CARPENTER, INC.
ENGINEERS
Investigations—Reports—Appraisals
Original Cost and Depreciation Studies
Rate Analyses—Insurance Surveys
HARRISBURG, PENNSYLVANIA

MINER AND MINER
CONSULTING ENGINEERS
INCORPORATED
GREELEY COLORADO

FRANCIS S. HABERLY
CONSULTING ENGINEER
Valuation—Depreciation
Investigations and Reports
122 SOUTH MICHIGAN AVENUE, CHICAGO

PITTSBURGH TESTING LABORATORY
Radiography—Soils—Mechanics
Testing—Inspection—Analysis
Main Office, Pittsburgh, Pa.
32 Laboratories In Principal Cities

Jackson & Moreland, Inc.
Jackson & Moreland International, Inc.
Engineers and Consultants
ELECTRICAL—MECHANICAL—STRUCTURAL
DESIGN AND SUPERVISION OF CONSTRUCTION FOR
UTILTY, INDUSTRIAL AND ATOMIC PROJECTS
SURVEYS—APPRAISALS—REPORTS
MACHINE DESIGN—TECHNICAL PUBLICATIONS
BOSTON NEW YORK

A. S. SCHULMAN ELECTRIC CO.
Electrical Contracting Engineers
founded 1890
POWER STATION—INDUSTRIAL—
COMMERCIAL—TRANSMISSION LINES—
DISTRIBUTION
2416 S. MICHIGAN AVE., CHICAGO, ILL.
Los Angeles Tampa

PETER F. LOFTUS CORPORATION
PFC ESTABLISHED 1923
Design and Consulting Engineers
Electrical • Mechanical • Structural
Civil • Nuclear • Architectural
FIRST NATIONAL BANK BUILDING
Pittsburgh 22, Pennsylvania

The R. W. STAFFORD CO.
GAS CONSULTANTS — ENGINEERS
CONSTRUCTORS
Natural Gas Conversions
Plant Management & Operations
Accident & Insurance Investigations
Peak Shaving & Standby Plants
EVANSTON, ILLINOIS
2944 Grant St. Phone UNiversity 4-6190

LUTZ & MAY COMPANY
Consulting Engineers
STEAM, GAS & DIESEL POWER STATIONS
PUMPING PLANTS—ELECTRIC SYSTEMS
REPORTS—DESIGNS—APPRAISALS
1009 Baltimore Kansas City 6, Mo.

SVERDRUP & PARCEL
Engineers & Consultants
Design, Construction Supervision
Steam and Hydro Power Plants
Power Systems—Industrial Plants
Studies—Reports
St. Louis • San Francisco • Washington

J. F. McMAHON ASSOCIATES, INC.
Engineering Consultants
INSTRUMENTATION AND CONTROL
STUDIES • REPORTS
DESIGN • SUPERVISION
P. O. DRAWER 3908, SHAKER SQUARE STATION
CLEVELAND 20, OHIO
GArfield 1-4834

A. W. WILLIAMS INSPECTION CO., INC.
Specialized Inspection Service
Poles, Crossarms, Lumber, Piles, Crossties
Preservative Treatment and Preservative Analysis
208 Virginia St., Mobile, Ala.
New York St. Louis Portland
Inspectors stationed throughout the U.S.A.

Mention the FORTNIGHTLY—*It identifies your inquiry*

INDEX TO ADVERTISERS

[The Fortnightly lists below the advertisers in this issue for ready reference. Their products and services cover a wide range of utility needs.]

*Fortnightly advertisers not in this issue.

The design work on all these new substations is going to be hard to handle with our present force.

Of course! They have enough to do handling routine duties. Why don't you call in Pioneer?

GIVE YOUR NON-ROUTINE OPERATIONS TO PIONEER

Design and Consulting Engineering Services

Pioneer has specialized in designing power plants for 57 years. It offers design service for fossil fuel, hydro and atomic plants. It will also assist in forecasting load growth, in site selection, in purchasing and expediting of equipment and in supervising construction. Pioneer's other services include substation, transmission and distribution studies and design.

Services in Regulatory Matters

Pioneer offers its services in all phases of Federal, State and Local regulation including the rate base, depreciation analysis, cost of service studies, market analysis... certificate proceedings and rate of return.

Corporate Services

Pioneer's services in corporate matters include business and management engineering advice, financial, accounting and tax counsel and insurance and pension plans and programming. It operates a stock transfer and dividend disbursement service and maintains stock ledgers when desired.

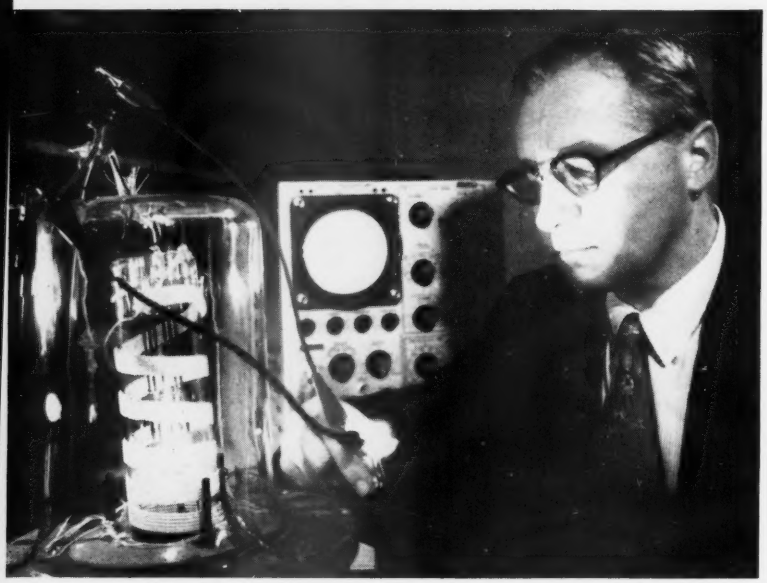
NEW!
On your letterhead, write for 40-page booklet, "Pioneering New Horizons in Power." Describes, illustrates Pioneer's engineering services, and corporate services, from financing to operation.

57 YEARS

Pioneer Service & Engineering Co.

231 South La Salle Street
Chicago 4, Illinois

TODAY'S RESEARCH AND TOMORROW'S POWE



G.E.'S THERMIONIC CONVERTER, as a major power producer is a long way off. Pure research, however, is paying off in new ideas for improving today's generating equipment. Immediate gains are being achieved through research and development on . . .

TECHNOLOGICAL PROGRESS

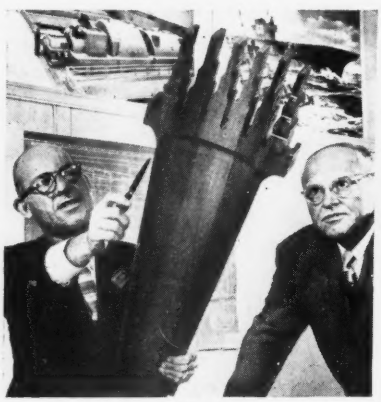
General Electric's "across the board" approach to scientific research in the development of new sources of energy for generating electricity is expected to yield immediate as well as long-term improvements in power generation equipment.

TWO LONG-TERM PROSPECTS for generating electricity which appear technically and economically feasible in the years that lie ahead are—fission power and fusion power.

In addition to continued technological progress in these areas, intensive research is also being carried on to develop and utilize even more novel sources of energy—the fuel cell, direct conversion of solar energy to electricity, and the thermionic converter.

Investigations in these and other areas will undoubtedly produce unexpected payoffs which can have almost immediate application. The search for fusion power, for example, could lead to by-products in circuit technology or radiation generation long before fusion energy is harnessed for peaceful use.

SIGNIFICANT PROGRESS has already been achieved in the liquid cooling of



. . . longer last-stage buckets

large turbine-generator with water-cooled stator windings is now being manufactured by General Electric. The two generators of this cross-compound unit are each rated 265,000-kva at 30 psig hydrogen pressure.

Water has over twice the heat removal ability of oil. Its use as a liquid coolant will help to open up avenues for: 1) the building of generators of up to one million kva capacity while retaining the basic design simplicity of conventionally-cooled units, 2) significant

costs, and 3) overcoming th[e] tions on higher generator ra[ting] posed by current shipping res[tric]

BENEFITS TO ELECTRIC UTILI[TIES] searching for new knowledge an[d] italizing on existing technolo[gical] portunities, General Electric i[s st]for turbine-generator advances th[at] continue to result in low opera[ting] per kilowatt-hour of electricity pro[duced] Exploring all possible avenues fo[r] nical innovations and product im[prove]ments also helps electric u[tilit]satisfy their needs for increased [power] capacity. Also, these Genera[l E]research programs mean added [value] in-use for G-E steam turbine-gene[rators] operated by electric utilities.

FOR MORE INFORMATION on t[he] research and tomorrow's power a[t] eral Electric, contact your loca[l] Apparatus Sales Office or write f[or] letin GP-81. General Electric Co[mpany] Section 301-388, Schenectady 5,

MORE POWER TO AMERICA

GENERAL ELECT

. . . new liquid cooling techn[ique]

. . . and increasing the capacity